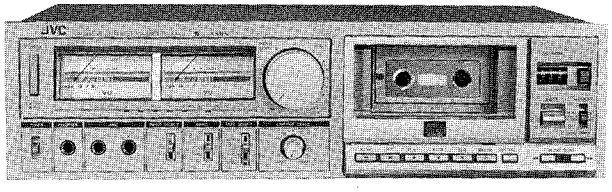
JVC

# SERVICE MANUAL

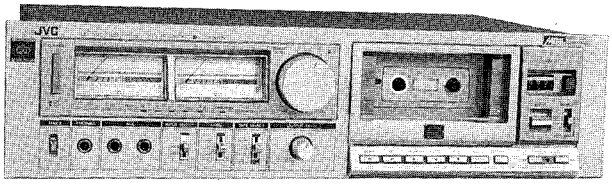
MODEL

## KD-A55 A/B/C/E/J/U

STEREO CASSETTE DECK



KD-A55C/J



KD-A55A/B/E/U

No. 4188
March 1980

# Contents



# Specifications

Type : Stereo cassette deck
Track system : 4-track, 2-channel
Tape speed : 1-7/8 inch/sec (4.8 cm/sec)
Frequency response:
(0 VU recording)
Metal tape *1; 30–12,500 Hz (±3 dB)
SA/Chrome tape *2; 30–8,000 Hz (±3 dB)
SF/Normal tape *3; 30–8,000 Hz (±3 dB)
(–20 VU recording)
Metal tape *1; 20–18,000 Hz
30–16,000 Hz (±3 dB)
SA/Chrome tape *2; 20–18,000 Hz
30–16,000 Hz (±3 dB)
SF/Normal tape *3; 20–17,000 Hz
30–15,000 Hz (±3 dB)
Surpasses DIN 45 500.
Note: *1 ... SCOTCH METAFINE or Equivalent
*2 ... TDK SA or Equivalent
*3 ... MAXELL UD or Equivalent
S/N ratio : 60 dB (from peak level, weighted, Metal tape)
The S/N is improved by 5 dB at 1 kHz and by 10 dB above 5 kHz with ANRS on.
(DIN 45 500 weighted)
Effect of Super ANRS: (normal tape)
Improvement of S/N: the same as with ANRS
Improvement of frequency response:
0 VU recording; 6 dB at 10 kHz
+5 VU recording; 12 dB at 10 kHz
Improvement of distortion:
0 VU recording; 3% or less at 10 kHz
+5 VU recording; 3% or less at 10 kHz
Wow and flutter : 0.04% (WRMS),
0.14% (DIN 45 500)
Crosstalk : 65 dB (1 kHz)
Harmonic distortion: K3; 0.4%, THD; 1.0%
(metal tape, 1 kHz 0 VU)
Bias : AC bias
Erasure : AC erasure (85 kHz)
Heads : SEN ALLOY head for recording/playback, 2-gap SEN ALLOY head for erasure, Ferrite head for music scan
Motors : Electronic governed DC motor (for Capstan)
DC motor (for Reel)

Fast forward time : 85 sec. with C-60 cassette
Rewind time : 85 sec. with C-60 cassette
Semiconductors : 11 ICs, 59 transistors, 61 diodes
Input terminals
Mic jack x 2 : Max. sensitivity; 0.2 mV (–72 dBs)
Matching impedance; 600 Ω – 10 kΩ
Input jack x 2 : Min. input level; 80 mV (–20 dBs)
Input impedance; 100 kΩ
Output terminals
Output jack x 2 : Output level; 0 – 500 mV
Output impedance; 6 kΩ
Phones jack x 1 : Output level; 0.3 mW (8 Ω)
Matching impedance; 8 Ω – 1 kΩ
DIN socket : Min. input level; 0.1 mV/kΩ
Input impedance; 10 kΩ
Output level; 0 – 500 mV
Output impedance; 5.5 kΩ
Matching impedance; 50 kΩ or more
Power requirement: AC 120 V, 60 Hz (KD-A55C/J)
AC 240/220/120 V, 50/60 Hz (KD-A55A/B/E)
AC 240/220/120/100 V, 50/60 Hz (KD-A55U)
Power consumption: 25 W
Dimensions : 17-3/4" (450 mm) W (KD-A55A/B/E)
16-1/2" (420 mm) W (KD-A55C/J)
4-3/4" (120 mm) H
11-7/8" (300 mm) D
Weight : 15.4 lbs (7.0 kg)

Design and specifications are subject to change without notice.

No. 4188

# JVC SERVICE MANUAL

## Supplementary

# MODEL KD-A55A/B/C/E/J/U

## STEREO CASSETTE DECK

This manual is supplementary of KD-A55A/B/C/E/J/U Service Manual (No. 4188) to improve performance and other reasons.

Please add this comparative table to the service manual (No. 4188) and give an order to us for the parts concerned to keep them as spare.

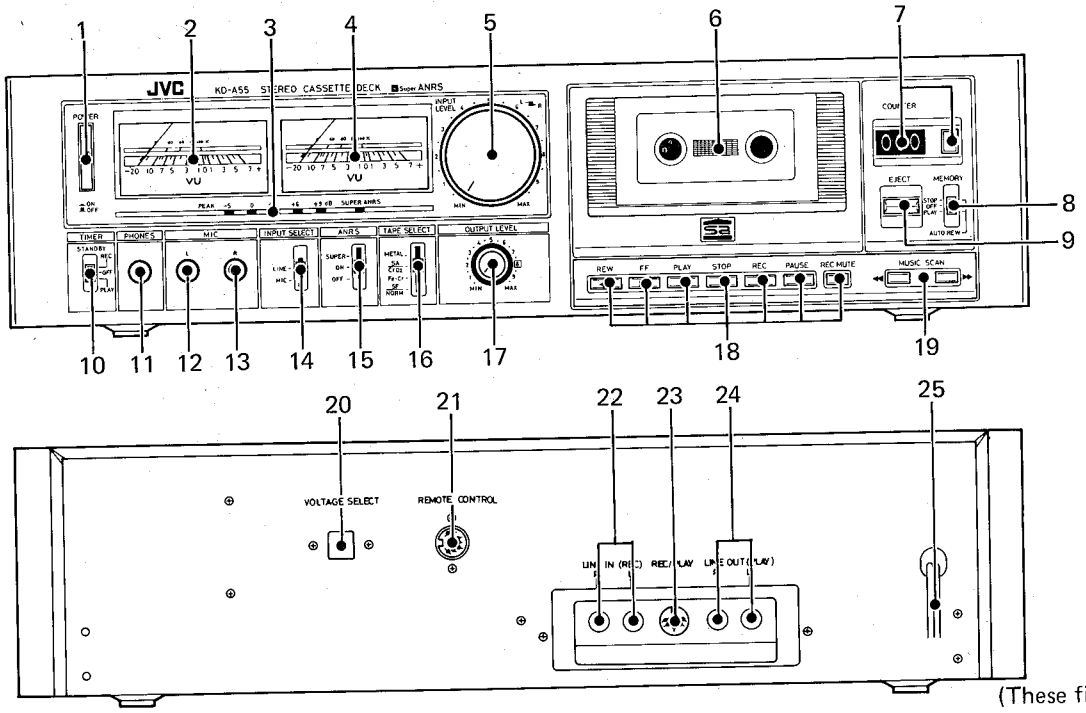
| Page | Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|---|---|---|---|---|---|
| | | | Jump Wire | | 2 |
| 33 | R130, 230 | ~~QRD143J-121S~~ | ~~C. Resistor~~ | ~~120 Ω ¼ W~~ | ~~2~~ |
| | ~~R135~~ | ~~QRD147J-102S~~ | ~~"~~ | ~~1 kΩ "~~ | ~~1~~ |
| | | | | | 2 |
| | ~~R235,~~ 165, 265 | QRD143J-102S | " | 1 kΩ " | ~~3~~ |
| | | | | | 4 |
| 34 | C102, 202, 103, 203, ~~130, 230~~ | QEB41EM-106M | E. Capacitor (Low Leak) | 10 μF 25 V | ~~6~~ |
| | | | | | 4 |
| | C108, 208 130, 230 | QEB41EM-475M | E. Capacitor (Low Leak) | 4.7 μF 25 V | ~~2~~ |
| | | -334M | | 0.33 | |
| | C129, 229 | QEB41HM-~~335M~~ | E. Capacitor (Low Leak) | ~~3.3~~ μF 50 V | 2 |
| | | -332 | | 0.033 | |
| | C132, 232 | QFM41HJ-~~562~~ | M. Capacitor | ~~0.0056~~ μF 50 V | 2 |
| | | AN7362N | | | |
| 35 | IC101, 102 | ~~AN7362~~ | IC | | 2 |
| 39 | (Power Switch) | -002 | | | |
| | | VMW4570-~~001~~ | P.W. Board | KD-A55A/B/C/E/J | 1 |
| | | -002 | | | |
| | | VMW4567-~~001~~ | P.W. Board | KD-A55U | 1 |
| | | ⚠ QSP2111-011 | Push Switch | for Power Switch KD-A55A/E | 1 |
| | | ⚠ " -011BS | " | " KD-A55B | 1 |
| | | ⚠ QSP1110-222 | " | " KD-A55C/J | 1 |
| | | ⚠ " -221 | " | " KD-A55U | 1 |
| | | *QCZ9015-103 | C. Capacitor | KD-A55U | 1 |
| | | VPH2130-001 | | | |
| 40 | 2 | ~~VPH2126-001~~ | Cushion (L) | | 1 |
| | | VPH2131-001 | | | |
| | 2 | ~~VPH2127-001~~ | Cushion (R) | | 1 |
| | | VPK4134-001 | Door | | |
| | | ~~VPK4132-001~~ | ~~Spacer~~ | | 1 |

No. 4188-B
April 1980

# Features

- Single lever 4-stage tape select switch makes the KD-A55 compatible with all types of tape including the new metal Tape format.
- Full logic control with 2-motor independant drive mechanism.
- SA (SEN-ALLOY) record/play head with wear resistance comparable with ferrite and sound quality better than Permalloy.
- Highly efficient SA (SEN-ALLOY) erase head capable of erasing high-coercivity Metal Tape.
- Self-illuminating control buttons clearly indicate the operational mode.
- ANRS and Super ANRS greatly reduce tape hiss-noise and improve linearity at high frequencies.
- 5 LED multi-point peak level indicator facilitates the adjustment of the recording level.
- Continuous stand-by mechanism with REC-OFF-PLAY switch for greater facility in unattended recording.
- REC MUTE button, convenient for leaving a non-recorded section on the tape between programs.
- MUSIC SCAN button for skipping and playing programs by locating the non-recorded sections between programs with the sensor head provided for automatic program selection.
- MEMORY switch, convenient when you want to listen to the same section of tape repeatedly.
- Remote Control terminal for operating the deck from a distance using the optional R-50E Remote Control Unit.

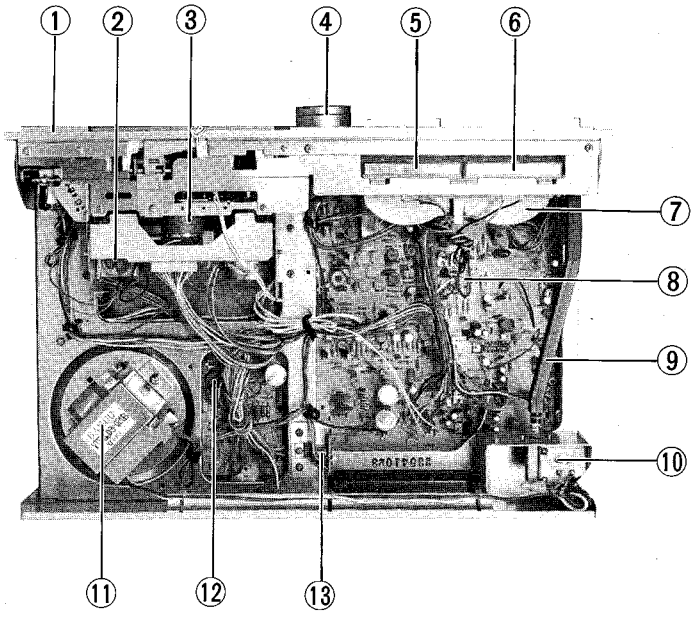
# Controls and Connections



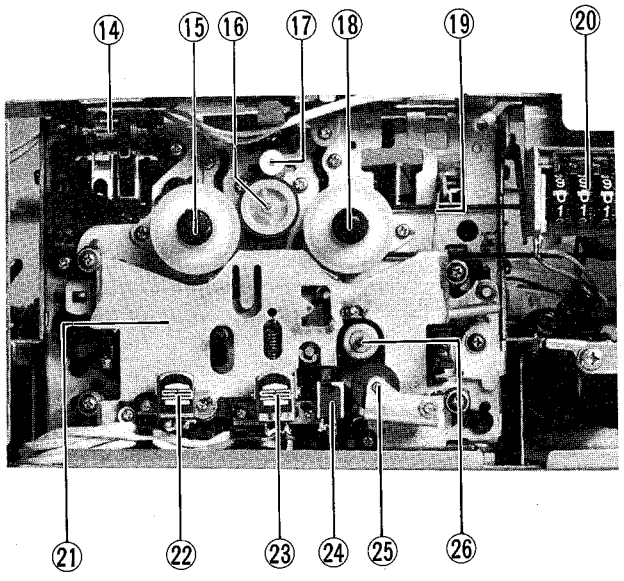

(These figures show KD-A55A/B/E/U.)

1. POWER switch
2. Left channel VU meter
3. Multi peak level indicators (red)
4. Right channel VU meter
5. INPUT LEVEL controls
   (forward knob—Left channel
   rearward knob—Right channel)
6. Cassette holder
7. Tape counter/counter reset button
8. MEMORY/AUTO REW switch
9. EJECT button
10. TIMER STANDBY switch
11. PHONES jack
12. Left channel microphone jack (MIC-L)
13. Right channel microphone jack (MIC-R)
14. INPUT SELECT switch
15. ANRS switch
16. TAPE SELECT switch
17. OUTPUT LEVEL control
18. Cassette operation button
    REWIND button (◀◀ )
    FF (fast-forward) button ( ▶▶ )
    PLAY button ( ▶ )
    STOP button (■)
    REC button (O)
    PAUSE button (II)
    REC MUTE button
19. MUSIC SCAN buttons
20. Voltage select switch (KD-A55A/B/E/U)
21. Remote control socket
22. LINE IN (REC) terminals
23. REC/PLAY socket (DIN socket)
24. LINE OUT (PLAY) terminals
25. Power cord

# Main Parts Location




1. Front panel assembly
2. DC solenoid for playback
3. Reel motor
4. Variable resistor (INPUT LEVEL control)
5. Right channel level meter
6. Left channel level meter
7. Meter cover
8. Main Amp. P.W. board assembly
9. Remote bar for power switch
10. Power switch P.W. board
11. Power transformer
12. Mecha control P.W. board assembly
13. IC903 (Power supply integrant circuit with heat sink bracket)




**Mechanical parts**

14. Switch holder (left switch)
15. Supply reel assembly
16. Idler assembly unit
17. Pully of reel motor
18. Take-up reel assembly
19. Connecting wire (for play solenoid)
20. Counter assembly
21. Slide base assembly
22. Erase head
23. REC/PB head
24. Sensing head
25. Pinch roller assembly
26. Capstan

# Removal of the main parts

Observe care in handing the parts since the parts are small in size and the distance between them are short due to a deck design aimed mainly at compactness and high performance.

### ENCLOSURE ASSEMBLY PARTS

- Cassette door . . . . . Depress the EJECT button to open the cassette door
  Slide off the cassette door upwards (about 5 mm) to unlock its pawls of both sides.
  Remove the cassette door forward.

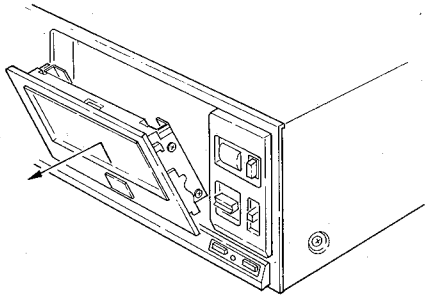


Fig. 1

- Top cover . . . . . Remove 4 screws fastening the top cover.
  Control knobs (INPUT LEVEL, OUT LEVEL) and Lever knobs (INPUT SELECT, ANRS and TAPE SELECT) . . . . . Pull off them forward.

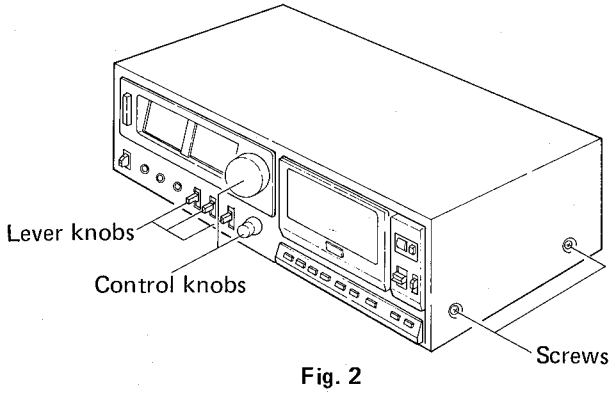
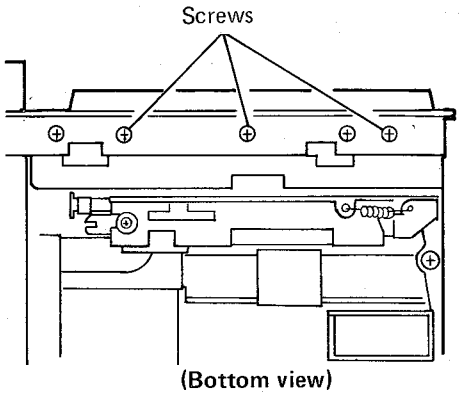



Fig. 2

- Bottom cover . . . . . Remove 5 screws fastening the bottom cover.

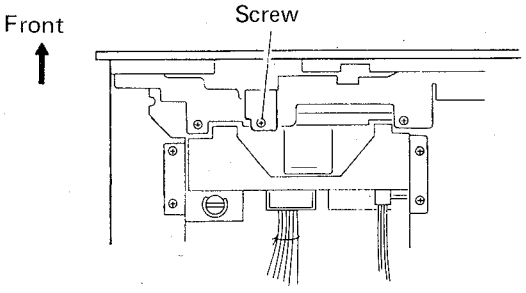
- Mecha. control switches assembly . . . . .
  (When adjusting or replacing REC/PB heads or Erase head)
  1) Remove the wires of the mecha. control switches from the wire clamp and 2 wire sockets after having removed the top cover.
  2) Remove 3 screws positioned below the mecha. control switches (on the bottom of the deck) and pull the control section forwards — no need of removing the front panel assembly.




(Bottom view)

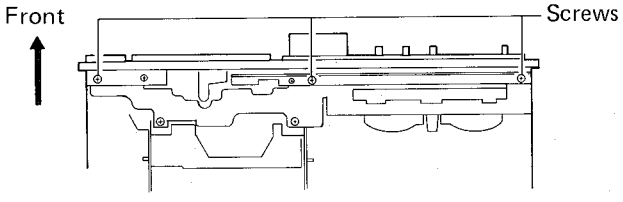
Fig. 3

- Front plate assembly . . . . .
  1) Remove a screw fastening the bracket to mechanical assembly.
  2) Remove 5 screws (3 screws on upper side and 2 screws on bottom side.) fastening the front plate assembly.
  (Front plate is removed with cassette holder and air dumper related parts.)



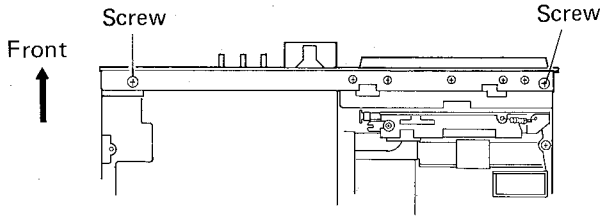

(Top view)

Fig. 4




(Top view)

Fig. 5




(Bottom view)

Fig. 6

- Meter escutcheon . . . . .
  1) Remove 2 screws fastening the escutcheon. (under side)
  2) Remove 3 pawls holding the escutcheon (upper side)

  (Meter escutcheon is removed with power knob ass'y and LED indicator P.W. board parts.)

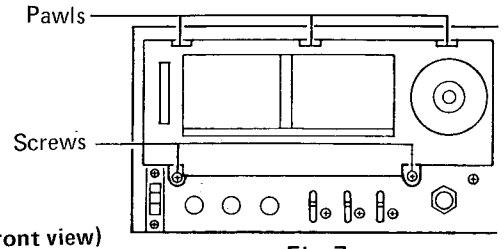



Fig. 7

- Removal of the level meter

  To remove 3 pawls of the meter cover, open the frame of front bracket to upper side, and then, remove the level meter with meter cover to rear side.

  (To remove the level meter, the meter escutcheon need not remove.)

## ELECTRICAL PARTS

- Mechanical control P.W. board assembly . . . . .

  Remove 4 screws fastening mecha. control P.W. board. (on bottom side)

- Main amp P.W. board assembly . . . . .
  1) Related parts of front bracket
     a) Remove washer and nut fastening variable resistor for output level control.
     b) Remove 3 screws fastening the lever switches. (INPUT SELECT, ANRS and TAPE SELECT)
  2) Remove 4 screws fastening the main amp P.W. board. (on bottom side)
  3) Remove 2 screws fastening the escutcheon of pin jack ass'y to rear panel.
  4) Pull off the P.W. board to rear and under sides.

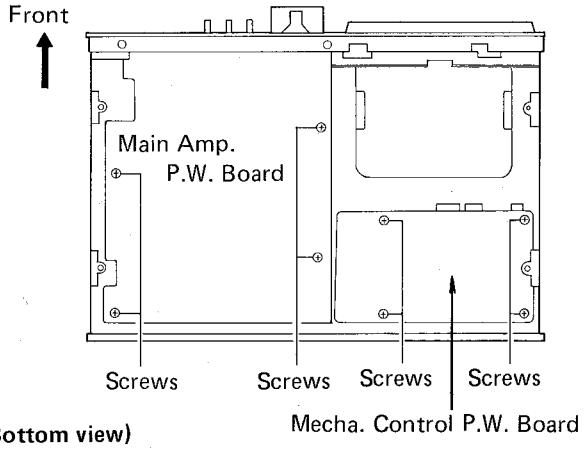



Fig. 8

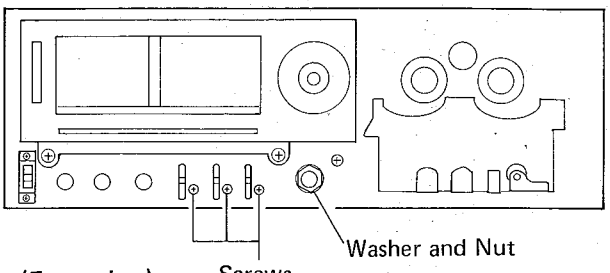



Fig. 9

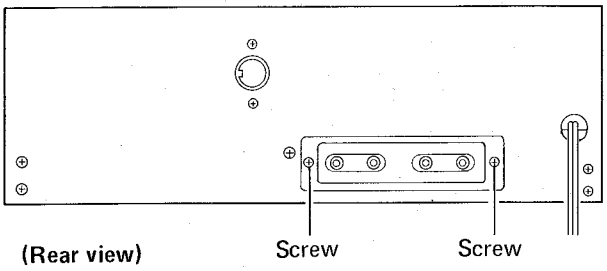



Fig. 10

## MECHANICAL ASSEMBLY

1. Remove a screw fastening the bracket of mechanical ass'y. (See Fig. 4 of page 5.)
2. Remove 2 screws fastening the front bracket. (upper side)
3. Remove a screw fastening the front bracket. (right side)
4. Remove 4 screws fastening the amp chassis. (2 screws each)

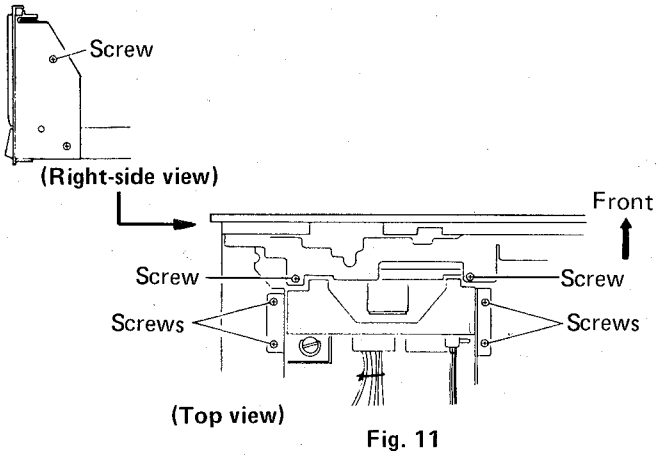



Fig. 11

**Note:** When assembly the mechanical ass'y . . . . . Insert the mechanical ass'y to front bracket from rear side, pushing the shift arm from upper side (holding the shift lever tip to upper side) and sliding the mechanical ass'y on the amp chassis, and then, fasten each screws in the same method as at removing, after to check the shift lever tip position to front of the eject bracket.

When fastening the shift arm, push the eject button to check the switch (left side of shift arm) operation.

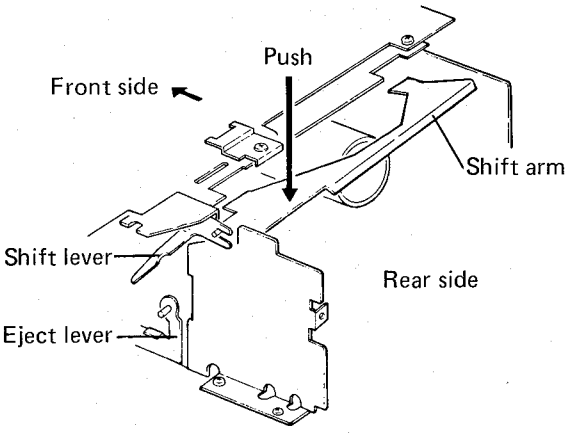



Fig. 12

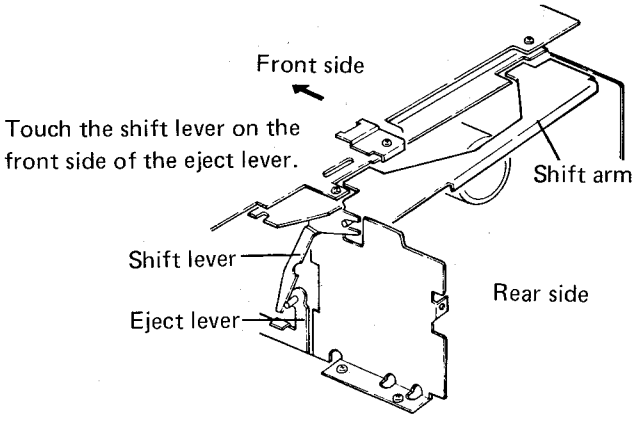



Fig. 13

## MECHANICAL PARTS

1. Music scan head . . . . .
   1) Remove a screw fastening the head base for music scan head.
   2) Slide to rear side.
   3) Remove 2 screws fastening the head to the slide plate.
2. REC/PB head . . . . .
   Remove a screw ①.
   Work loose a screw ② for adjustment.
3. Erase head . . . . .
   Remove a screw ③.
   Work loose a screw ④ for adjustment.
4. Pinch roller arm ass'y . . . . .
   Remove an E-ring ⑤ holding its assembly.
   Pull it off from the shaft.
5. Supply reel disc . . . . .
   Pull out the reel disc stopper ⑥ and pull out its disc from shaft.
6. Take-up reel disc . . . . .
   Pull out the reel disc stopper ⑦ and remove the counter belt, pull out its disc from shaft.

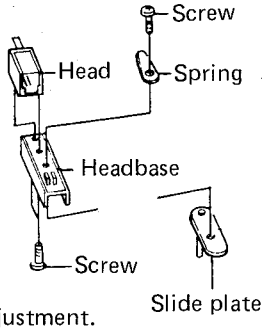



Fig. 14

**Note:** (1) Remove the reel disc stoppers with a piece of sheet metal inserted between the reel disc and stopper, when assembling the reel disc, the stopper need a new parts (the stopper cannot use again).
(2) Be careful not to stain the counter belt.

7. Reel motor . . . . .
   Remove 3 screws ⑧ fastening the reel motor.
8. Capstan motor . . . . .
   1) Remove a screw ⑨ fastening the rubber stopper.
   2) Remove the capstan belt from the motor pulley.
   3) To remove the motor, turn it in counterclockwise direction and pull it out backward (with 3 cushions and 3 screws for fastening the motor).

**Note:** When replacing the motor, check the following points.
(1) Is the motor placed in correct position? (Don't make the motor's position deflective.)
(2) Does the capstan belt run in the center of the motor pulley?

**(Front view)**

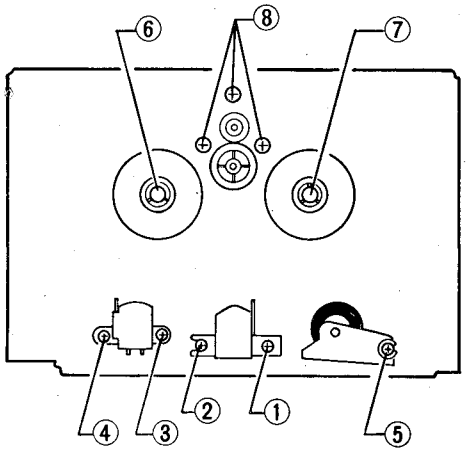



Fig. 15

**(Rear view)**

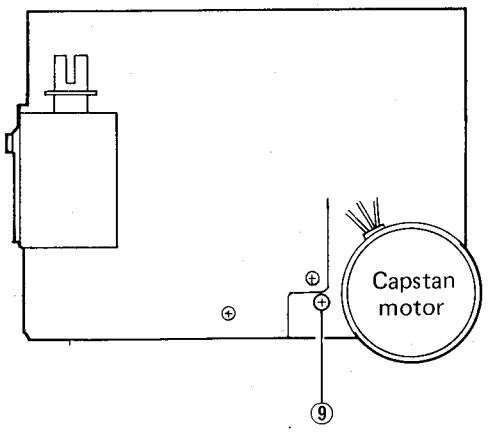
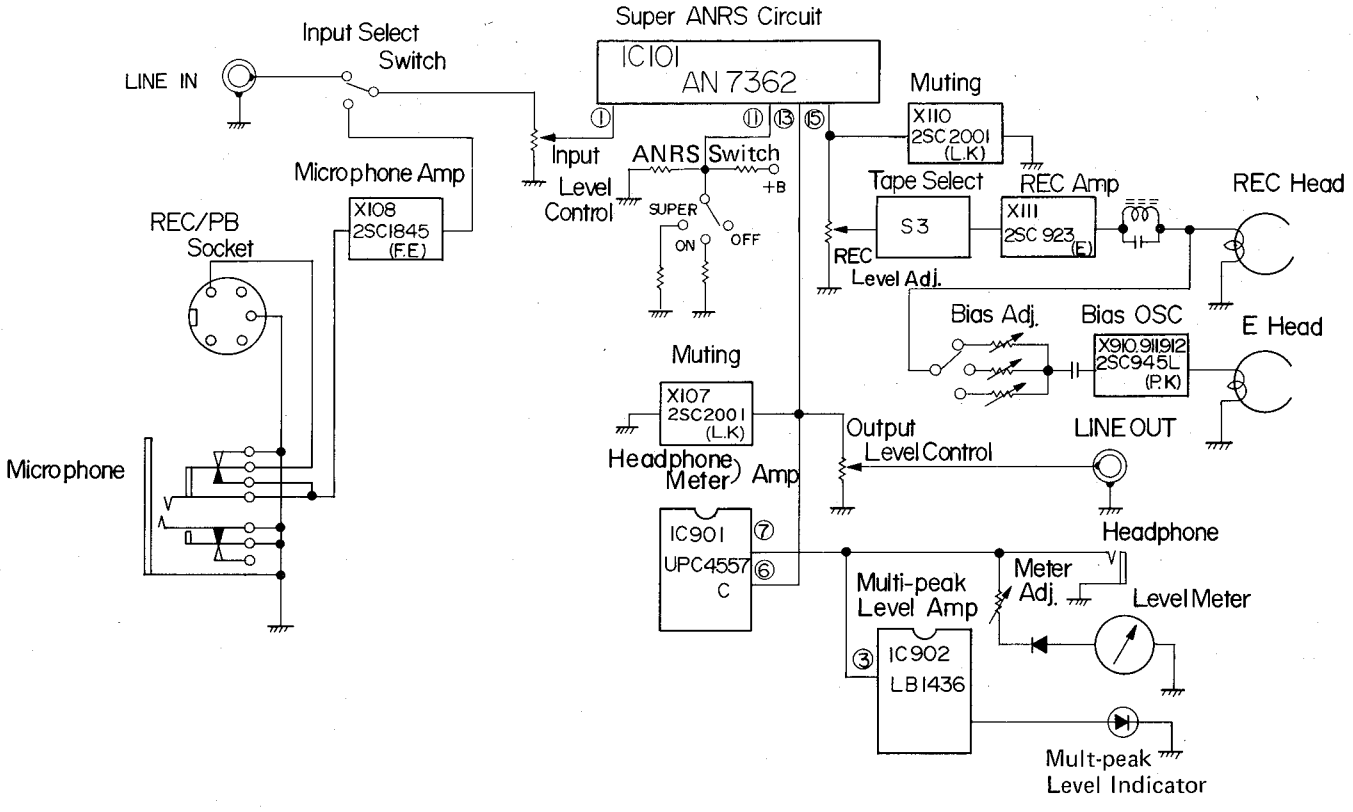


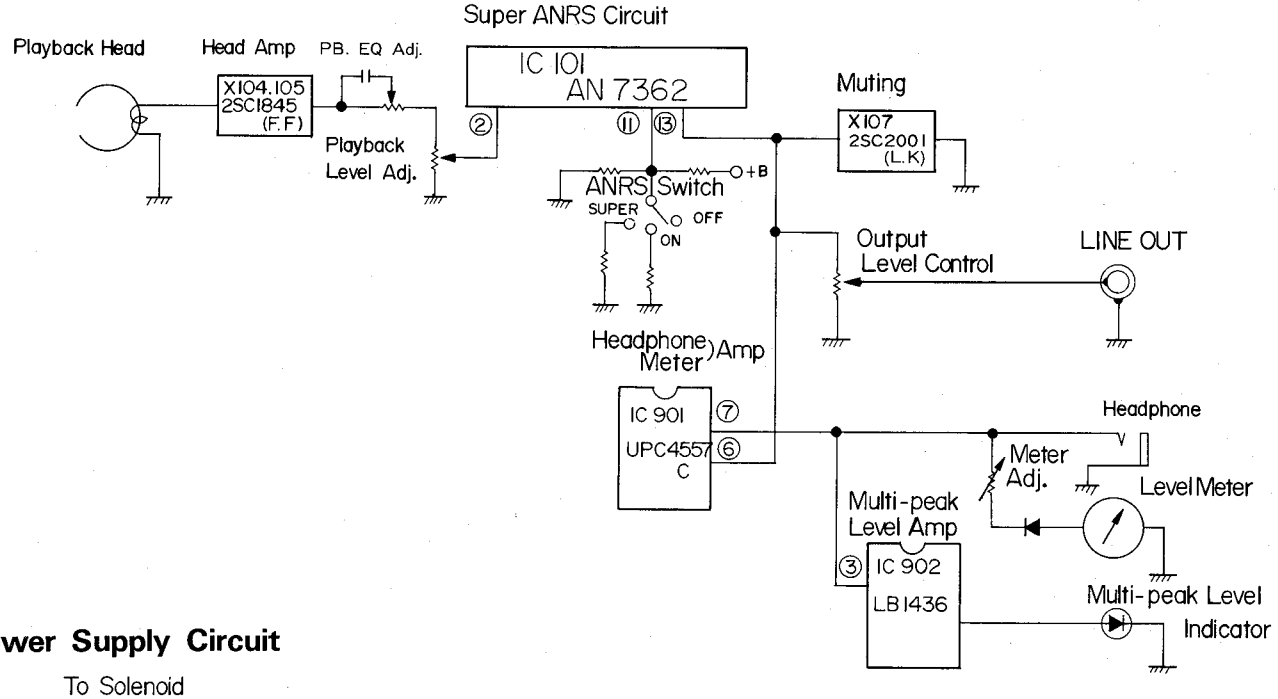

Fig. 16

# Block Diagram

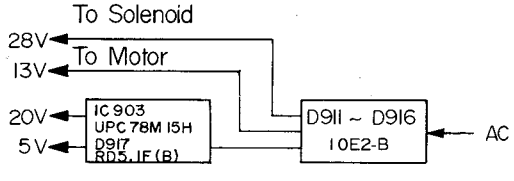
## Recording System




## Playback System

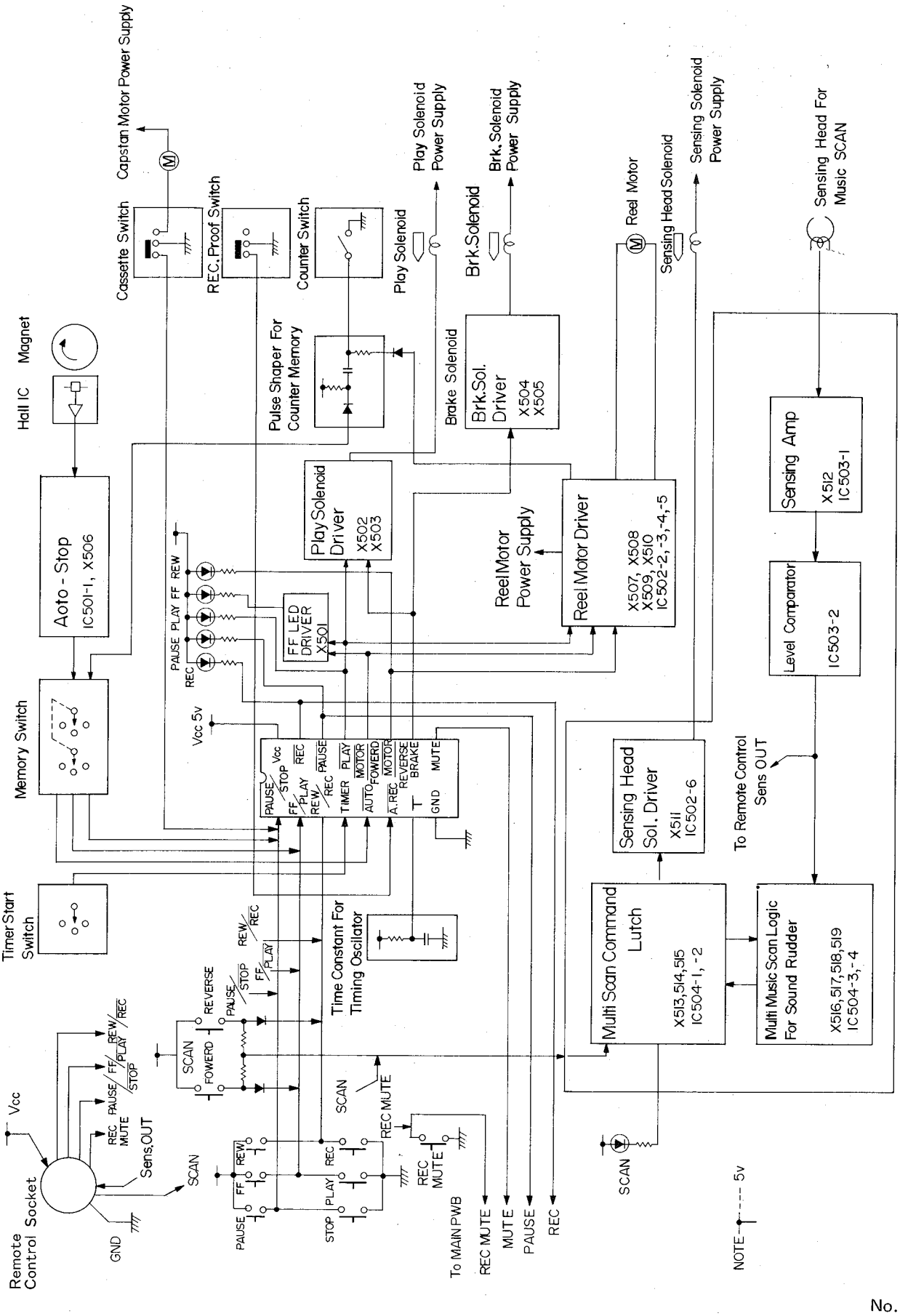



## Power Supply Circuit




No. 4188

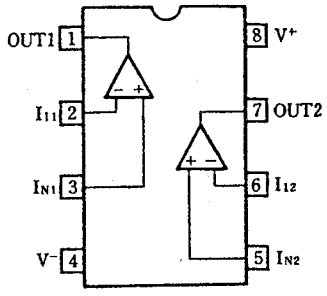
## Mecha. Control Circuit



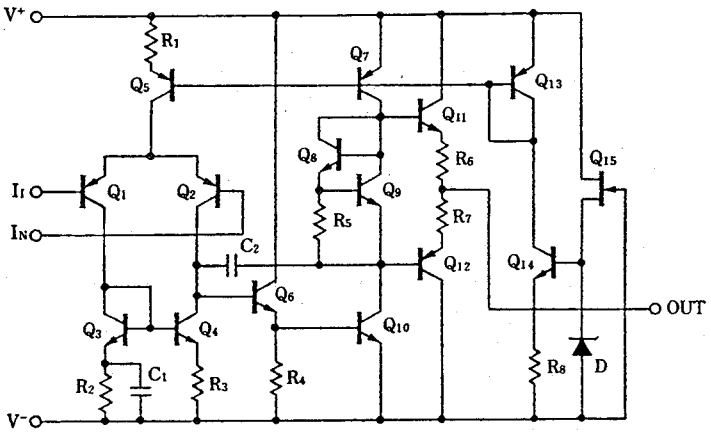
# Integrant Circuit

– UPC4557C –

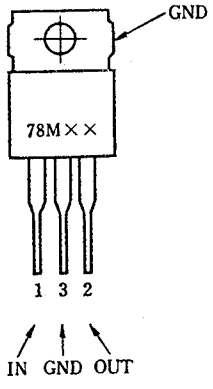
Top view



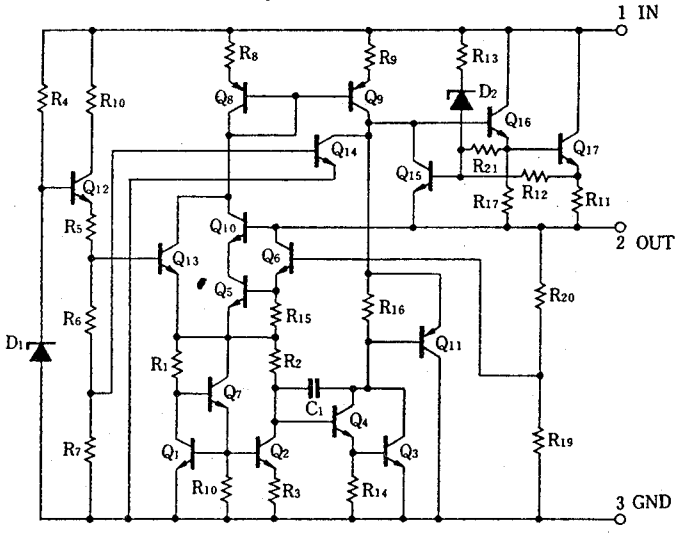

Equivalent circuit (1/2)




– UPC78M15H –

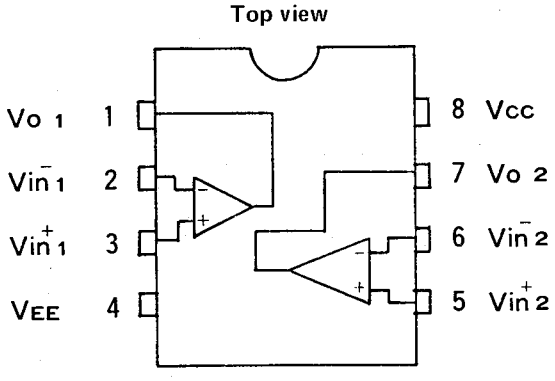



Equivalent circuit

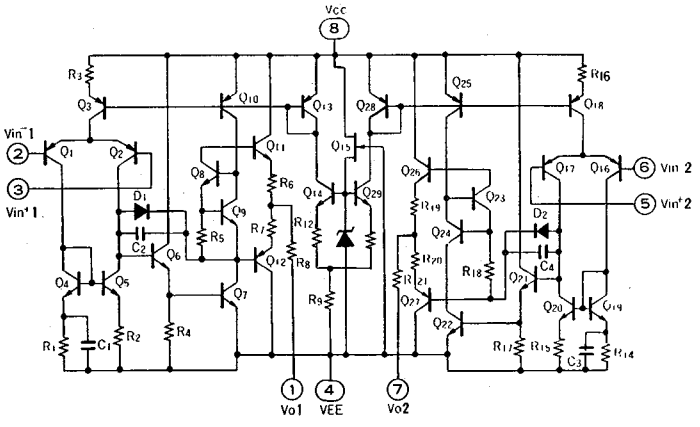



– AN6552 –

Top view

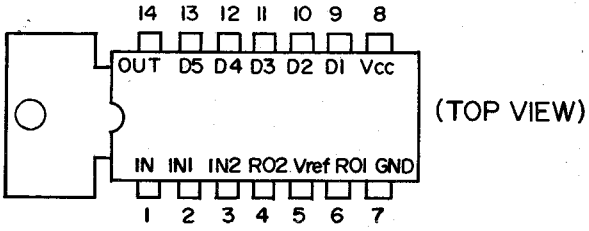



Equivalent circuit

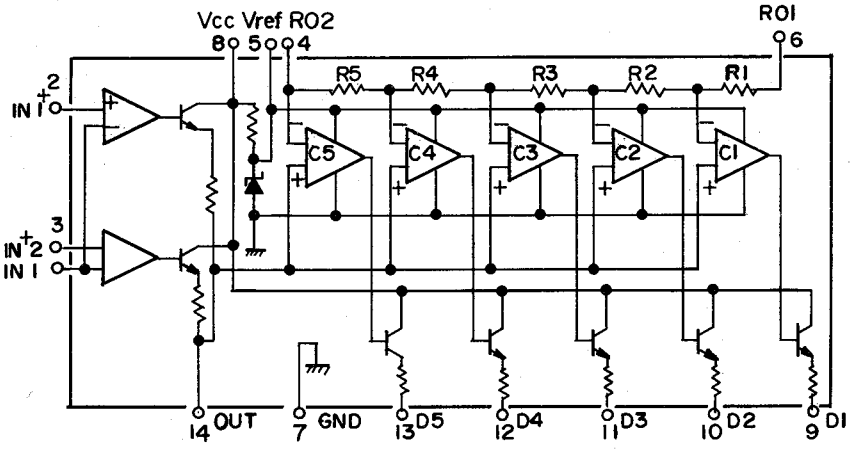



(Continued to page 15)

— LB1436 —

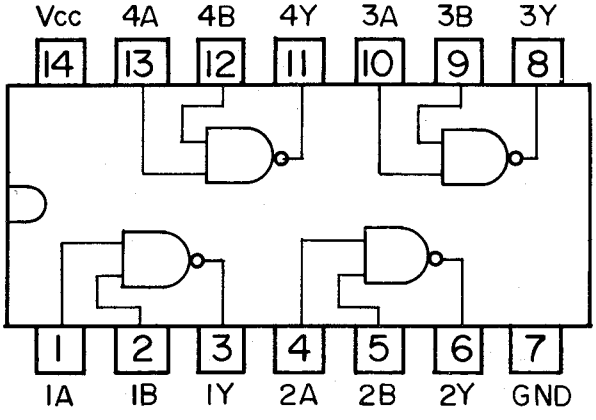



(TOP VIEW)



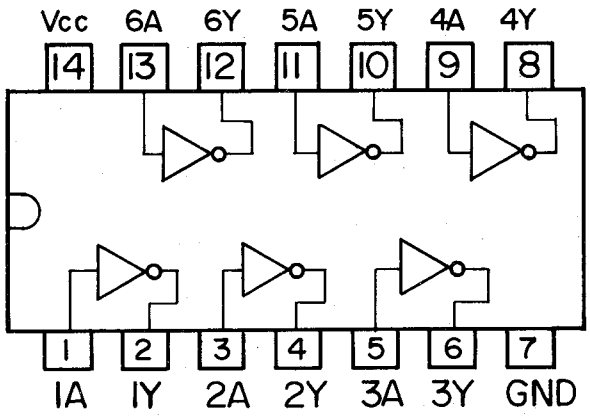

— M74LS03P —

(Top view)

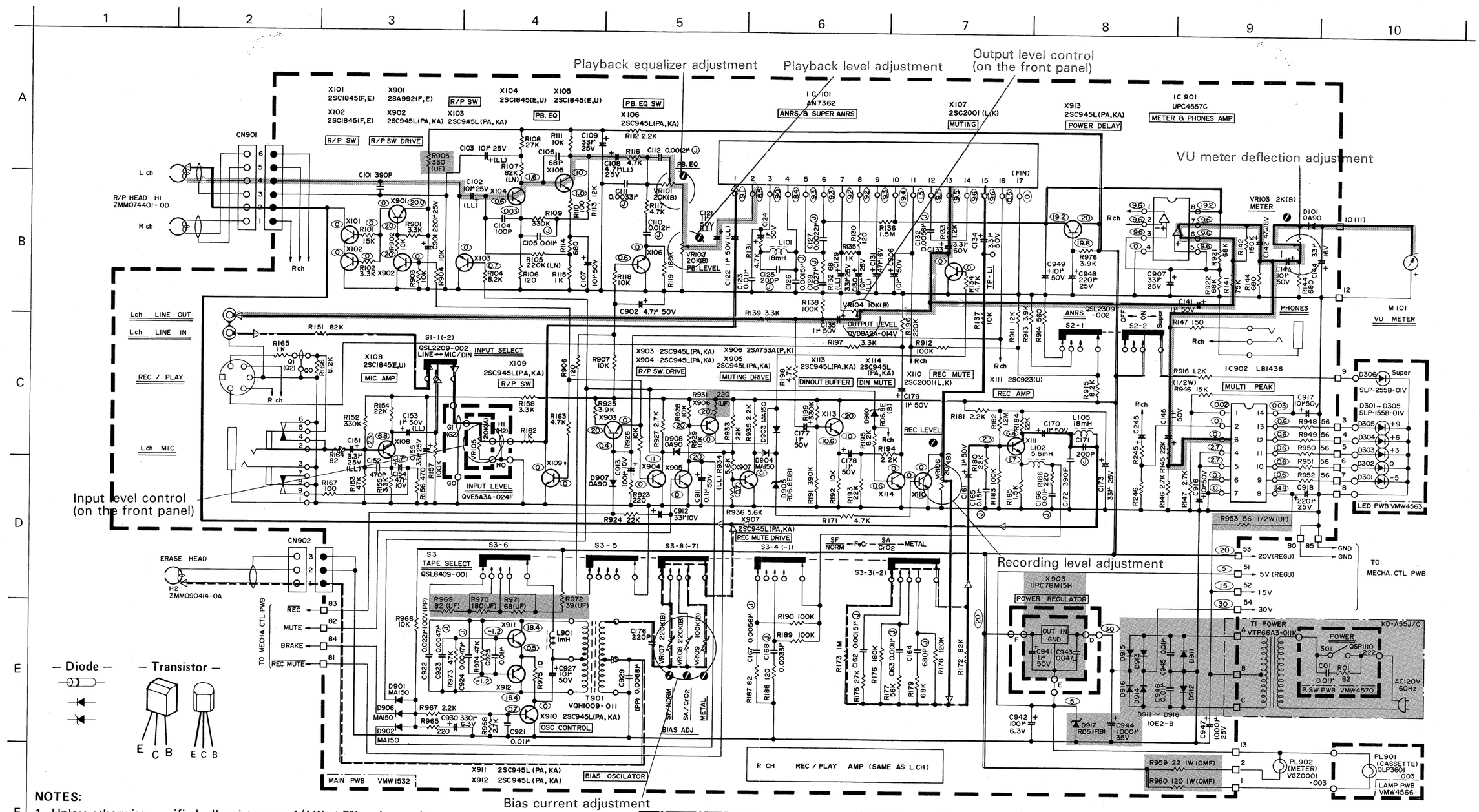


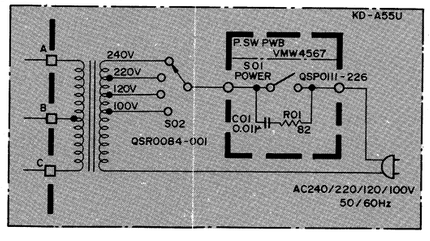

— M53206P —

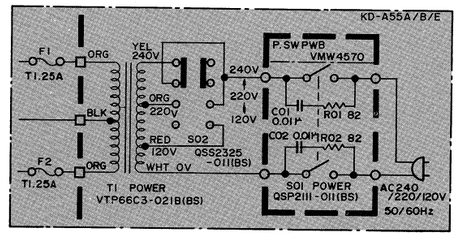
(Top view)



# Standard Schematic Diagram of KD-A55 (Amprifier Circuit)



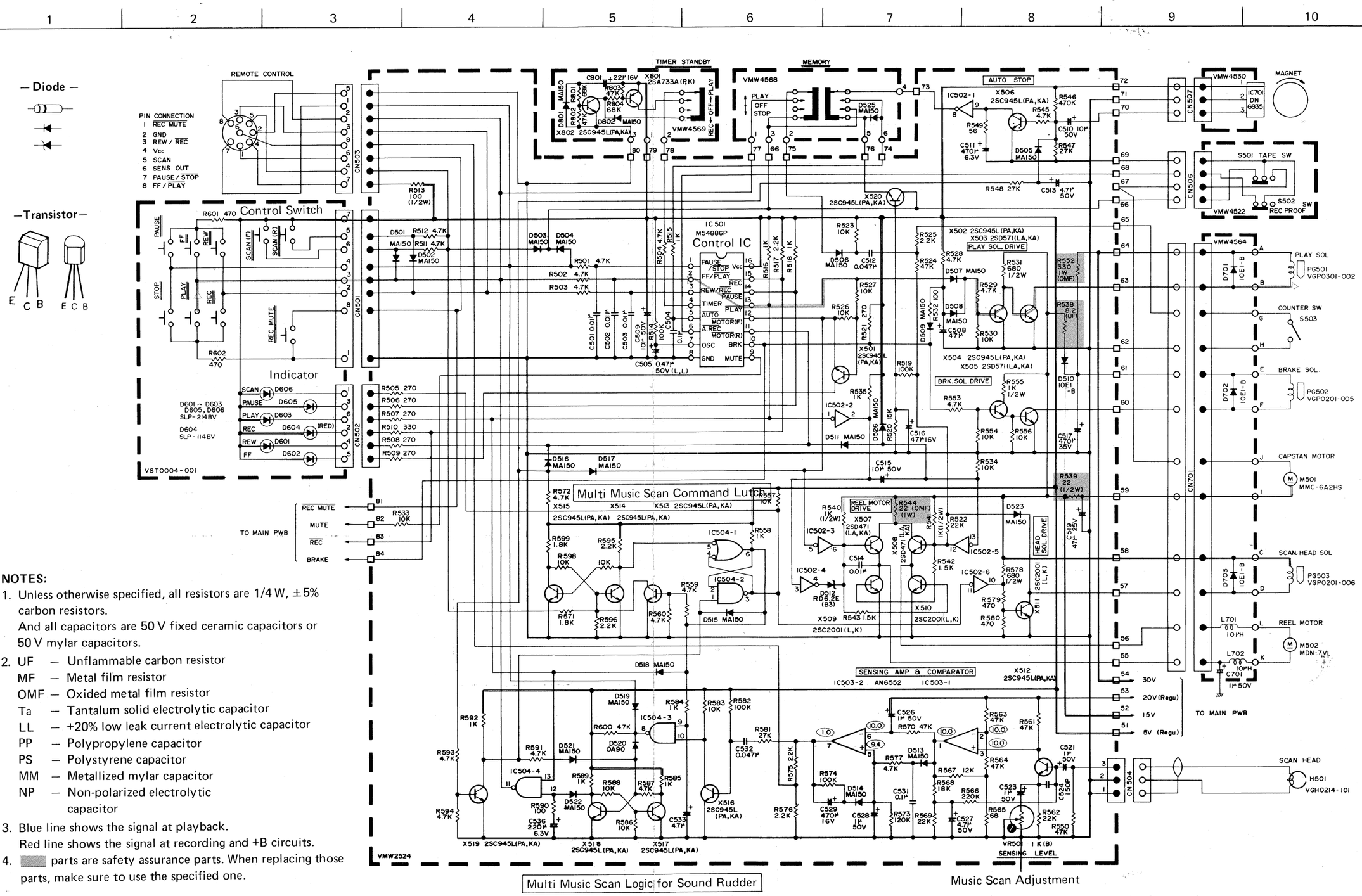




**NOTES:**

1. Unless otherwise specified, all resistors are 1/4 W, ±5% carbon resistors.
   And all capacitors are 50 V fixed ceramic capacitors or 50 V mylar capacitors.
2. UF — Unflammable carbon resistor
   MF — Metal film resistor
   OMF — Oxided metal film resistor
   Ta — Tantalum solid electrolytic capacitor
   LL — +20% low leak current electrolytic capacitor
   PP — Polypropylene capacitor
   PS — Polystyrene capacitor
   MM — Metallized mylar capacitor
   NP — Non-polarized electrolytic capacitor
3. Red lines show +B circuits.
   Blue line shows the signal at playback.
4. ▒ parts are safety assurance parts. When replacing those parts, make sure to use the specified one.

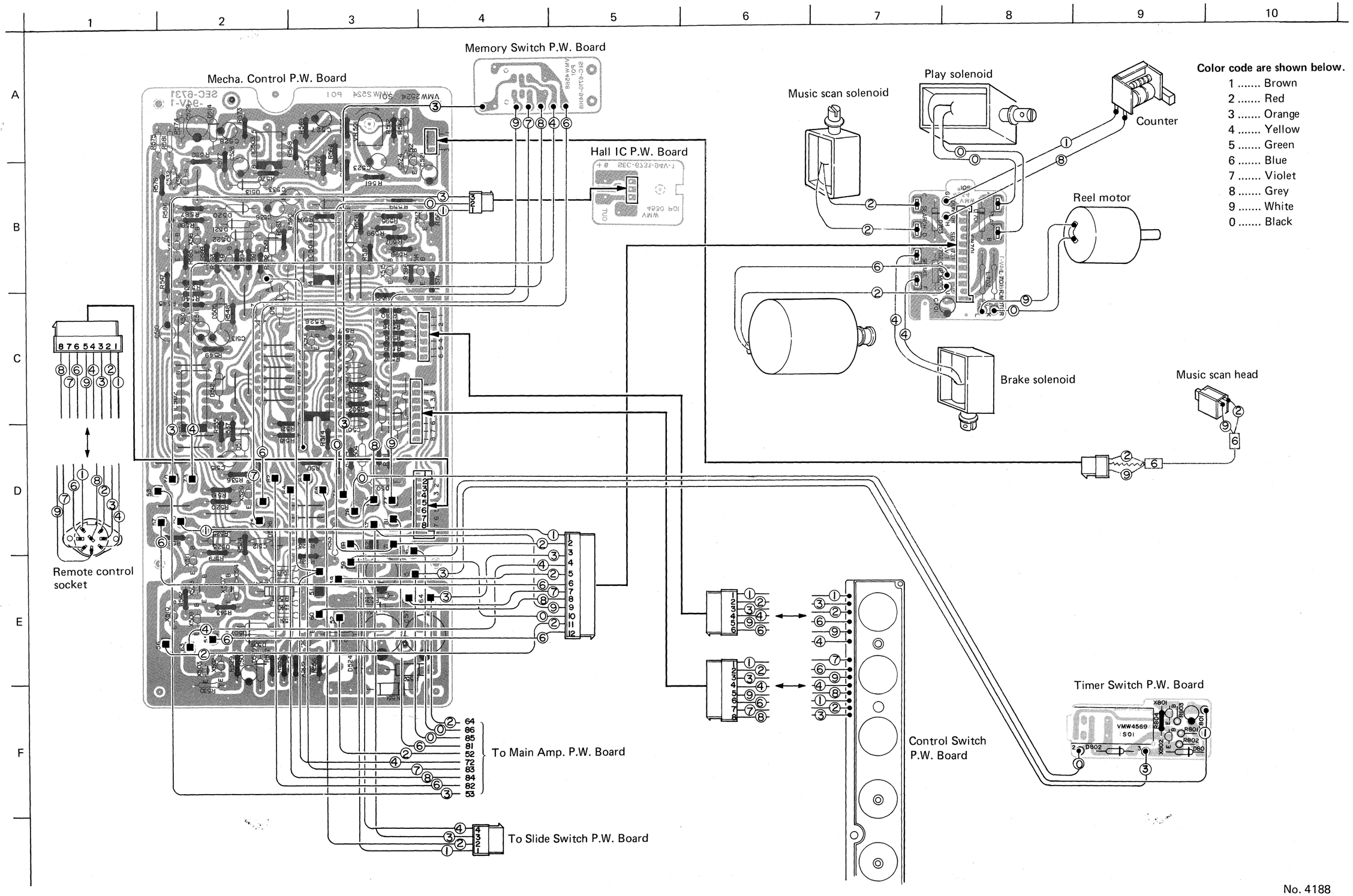
# Standard Schematic Diagram of KD-A55 (Mecha Control Circuit)




**NOTES:**

1. Unless otherwise specified, all resistors are 1/4 W, ±5% carbon resistors.
   And all capacitors are 50 V fixed ceramic capacitors or 50 V mylar capacitors.
2. UF — Unflammable carbon resistor
   MF — Metal film resistor
   OMF — Oxided metal film resistor
   Ta — Tantalum solid electrolytic capacitor
   LL — +20% low leak current electrolytic capacitor
   PP — Polypropylene capacitor
   PS — Polystyrene capacitor
   MM — Metallized mylar capacitor
   NP — Non-polarized electrolytic capacitor
3. Blue line shows the signal at playback.
   Red line shows the signal at recording and +B circuits.
4. ▒▒ parts are safety assurance parts. When replacing those parts, make sure to use the specified one.

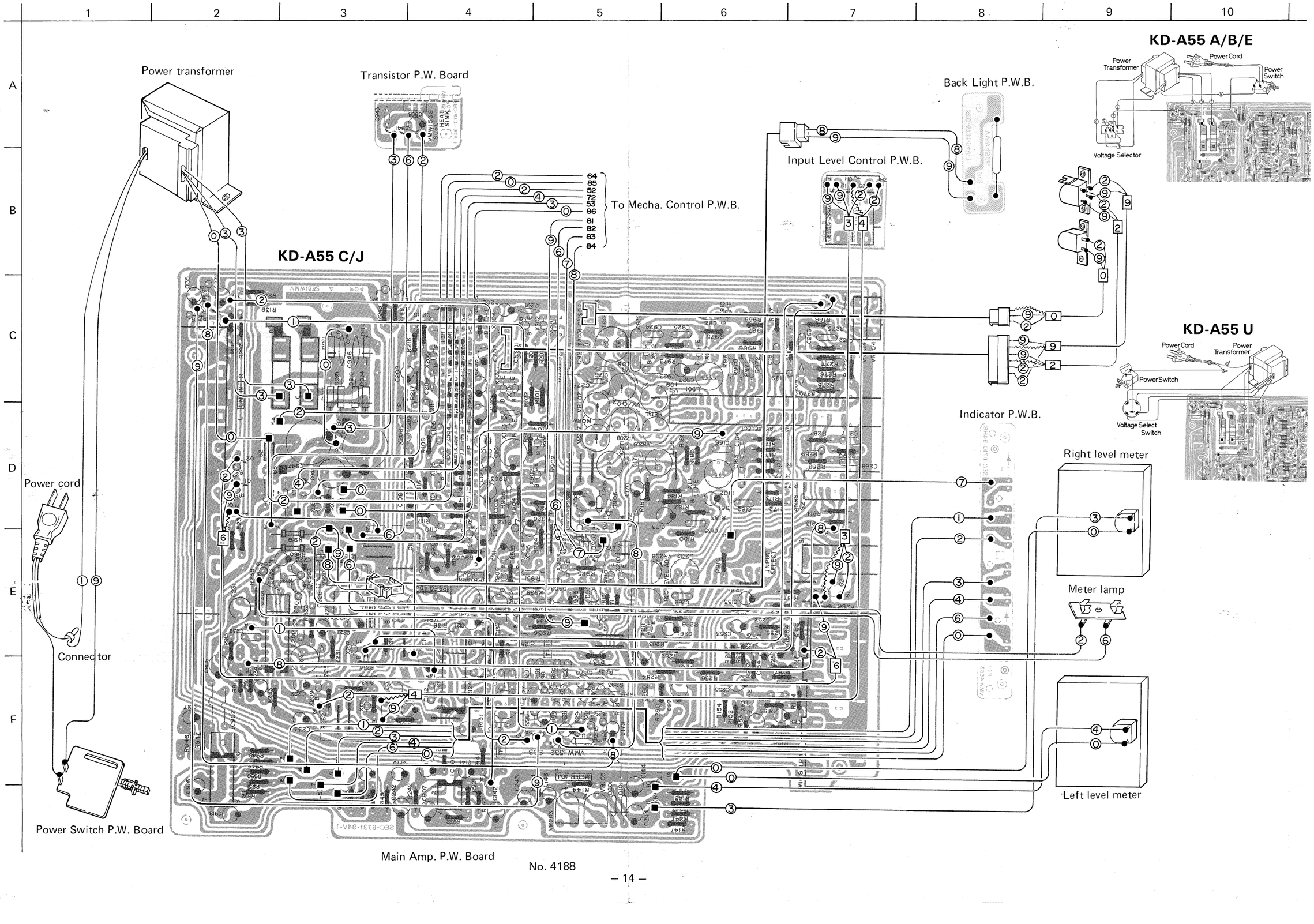
# Wiring Connector (1)






No. 4188

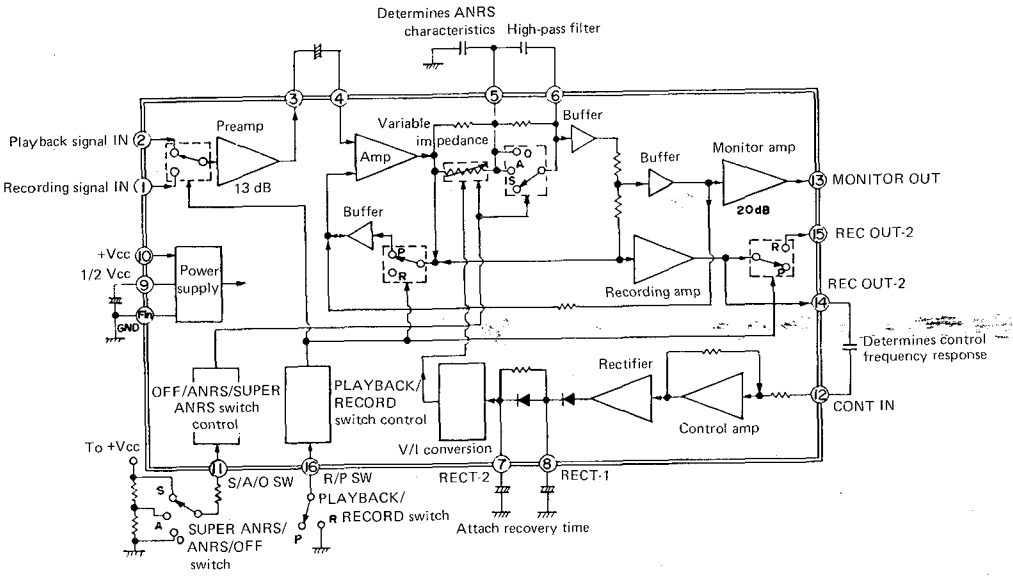
# Wiring Connector (2)



## – AN7362 –

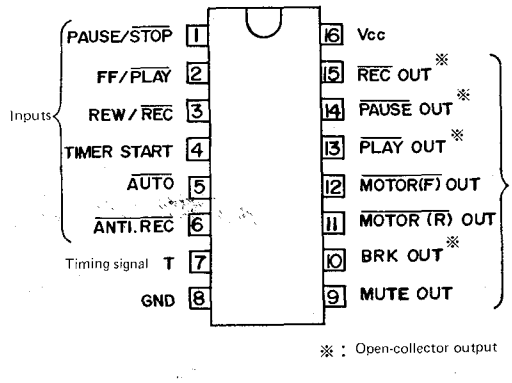
(Continued from page 10)

### Block diagram

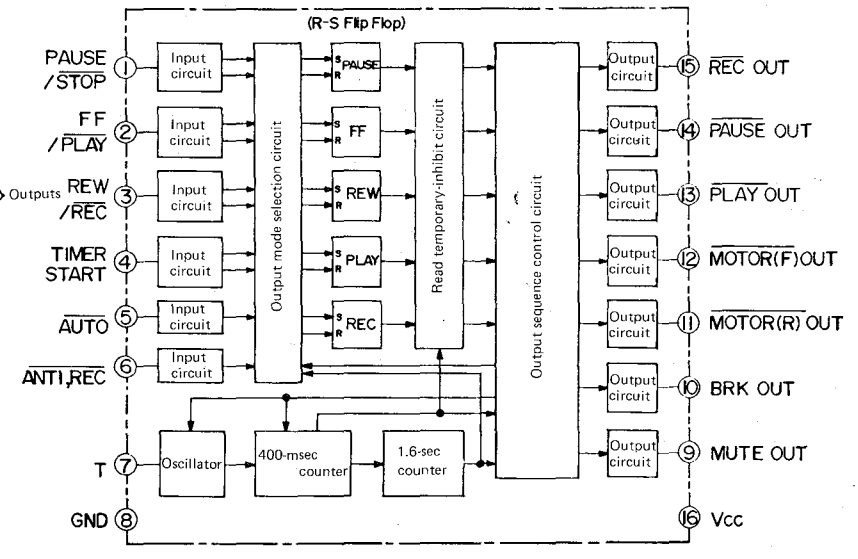



## – M54886P –

### Top view




### Block diagram

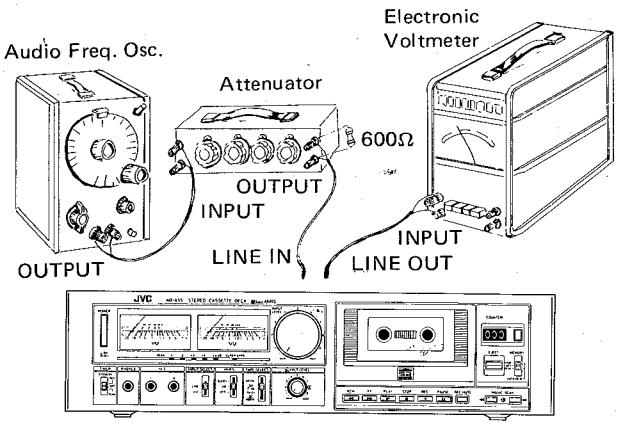


# Main Adjustments

## [I] Equipment and measuring instruments used for adjustment

**1. Electrical adjustment**

1) Electronic voltmeter
2) Audio frequency oscillator
   (range: 50—20 kHz and output 0 dB with impedance 600 Ω)
3) Attenuator
4) Standard tapes for REC/PB
   Maxell UD — SF tape
   TDK SA — SA tape
   SCOTCH METAFINE — Metal tape
   } or equivalent
5) Reference tapes for playback (JVC Test Tape)
   VTT-658 (for head azimuth adj.)
   VTT-656 (for motor speed, wow flutter adj.)
   VTT-664 (for Reference Level 1 kHz)
   VTT-675N (for playback frequency response)
6) Resistors
   100 Ω (for measurement of the bias current)
   600 Ω (for attenuator matching)




KD-A55

**2. Mechanical adjustment**

1) Gauge for checking the head position.
2) Torque gauge
3) Blank tape (C-120) for tape running checker.

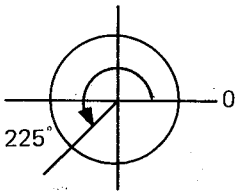
## [II] Adjustment and repair of the mechanism

**TROUBLESHOOTING HINTS**

**1. Azimuth adjustment and head replacement**

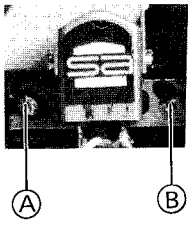
1) Remove the wires of the control switches from the wire clamps after having removed the top cover.
2) Remove 3 screws positioned below the control switches (on the bottom of the deck) and pull the control section forwards.
3) With the control section pulled out, azimuth adjustment and/or head replacement can be performed.
   With the JVC cassette deck series of KD-A6, KD-A5 and KD-A8 models, the adjustment of replacement can be performed more easily than with conventional cassette decks which require removal of the entire mechanical section for the adjustments and/or replacements.

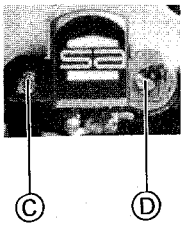
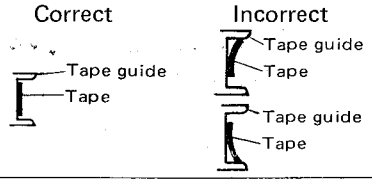
**2. Tape-to-head contact adjustment**




1) Turn the adjusting screw for aligning the erase head until it stops. Then, turn the screw in the reverse direction by 225° (a 5/8 revolution).
2) Check the tape-to-head contact using a C-120 tape having pads.
3) Check it again with a Metal tape.
   Checking method:
   Record a 400 Hz or 1 kHz signal with 0 VU + 20 dB. Erase the recording. Checking if the erasing is satisfactorily performed.
4) After adjustment, apply screw bond on the adjusting screw to prevent its loosening.

(Adjust the mechanism or confirm that it is in normal operating condition prior to the adjustment of the electrical circuit.)

| Item | Adjustment | Adjusting point | Standard value | Remarks |
|---|---|---|---|---|
| Adjusting record/playback head position   | 1. Connect an electronic voltmeter to the LINE OUT terminals.<br>2. Play back the VTT-658 test tape.<br>3. Adjust the head angle with the screw Ⓐ until the reading of the electronic voltmeter becomes maximum for both channels.<br>4. After adjusting, set the screw with screw bond. | Screw Ⓐ | Maximum | If the head is worn, disconnected or exceedingly magnetized so as not to provide the necessary characteristics, replace it with a new one.<br>After replacement, the head position adjustment as well as the playback level adjustment, the bias current adjustment and the recording level adjustment are all necessary.<br>If the output difference between the left and right channels exceeds 3 — 4 dB, the head is defective.<br>Replace it with a new one. |

| Item | Adjustment | Adjusting point | Standard value | Remarks |
|---|---|---|---|---|
| Adjusting erase head height   | Employ a special cassette (C-120) from which parts of the casing, where the erase head, record/playback head and capstan engage, has been cut away. Perform tape transport with the cassette tape. Adjust the screw Ⓒ until the tape runs in the center of the erase head tape guide. (See "Troubleshooting hints" aforesaid.)   | Screw Ⓒ | | Be sure to perform this adjustment after replacing the erase head. |
| Adjusting motor speed | Connect a speed meter (an electronic counter) to the LINE OUT terminals. Play back the VTT-656 test tape. Adjust the semi-fixed ressistor in the motor until the reading of the speed meter is 3000 Hz. | Semi-fixed resistor in the motor | 3000 Hz | If the speed meter functions as a wow and flutter meter, also, connect the deck to the INPUT terminals of the meter. |
| Checking playback torque | Employ a torque testing cassette tape for the checking, or remove the cassette cover and use a torque gauge. | | 40—70 gr-cm | If the standard torque is not obtained, replace the take-up disc assembly. |
| Checking fast forward torque | Measure the torque in the fast forward mode in the same manner as in the above. | | More than 70 gr-cm | If the standard torque is not obtained, perform the following.<br>1. Clean the capstan belt, the idler circumference, the motor pulley, the take-up reel disc circumference, the flywheel circumference, etc.<br>2. Replace the belt and idler. |
| Checking rewind torque | Measure the torque in the rewind mode in the same manner as in the above. | | More than 70 gr-cm | If the standard torque is not obtained, clean the capstan belt, idler, motor pulley, flywheel circumference, rewinding idler circumference, left reel disc circumference, etc. |
| Checking wow and flutter | Connect a wow and flutter meter to LINE OUT terminals. Play back the VTT-656 test tape. Check to see if the reading of the meter is within 0.04% (WRMS). | | | If the reading becomes moving value even if conforming to the standard, a re-claim may be raised. Repairs are necessary. |

## [III] Repair of wow flutter

If wow and flutter increase, check the following points. If there is defect in revolving parts, the wow and flutter generated will increase in proportion to the number of revolutions.

Play a 300 Hz test tape, and defective part can be detected from the sound.

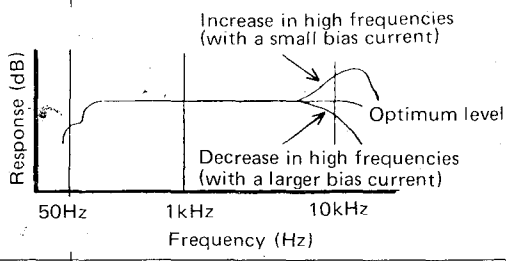
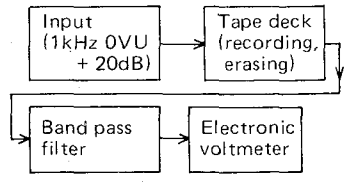
| Section | Trouble | Repair |
|---|---|---|
| Capstan and flywheel | Capstan shaft has excessive run-out.<br>Flywheel turns heavily.<br>(shaft seisure, thrust play, etc.) | Replace flywheel.<br>Clean the capstan shaft and the groove in the flywheel.<br>Apply oil to the metal position.<br>Replace the capstan assembly. |
| Pinch roller | Rough rotation (Deformation scratches, or dust)<br>The angular position of the pinch roller is not correct.<br>The pinch roller pressure is not correct. | Replace pinch roller, or pinch roller spring.<br>Clean the pinch roller or apply oil to the rotary shaft.<br>Adjust the pinch roller so that it is parallel with the capstan shaft.<br>Replace the pinch roller spring. |
| Belt | Belt has undue run-out.<br>Belt is dirty or slippery. | Clean the belt.<br>Replace the belt. |
| Back tension | Back tension is irregular, or back tension is too strong. | Replace back tension spring (under supply disc). |
| Motor | Motor shaft has undue run-out.<br>Motor pulley is oily and dusty. | Replace the motor.<br>Clean the motor pulley. |

## [IV] Electrical circuit adjustment procedure

In the steps marked by an asterisk (*), adjustment should be performed, however, only checking is sufficient with steps other than those.

Adjustment should be performed in the order of steps 1, 2, 3, . . . Perform this adjustment with the ANRS switch set to OFF and output level control set to maximum.

| Step | Item | Adjustment | Adjusting point | Standard value | Remarks |
|---|---|---|---|---|---|
| 1* | Adjusting playback level | 1. Play back the VTT-664 Reference tape (1 kHz) with the tape select switch set to the SF/NORM position.<br>2. Adjust VR102 and VR202 until the LINE OUT becomes about –4 dBs. | VR102, 202 | –4 dBs | This adjustment becomes necessary when a change in playback level results (for example, due to head replacement). |
| 2* | Playback frequency response | Playback test tape VTT-675N (1 kHz, 10 kHz) for following adjustment.<br>1) Adjust VR101 and VR201 so that 10 kHz signal and 1 kHz signal gains become flat response. | VR101, 201 | | |
| 3* | Adjusting VU meter deflection | 1. Set the cassette deck to its recording mode.<br>2. Apply a 1 kHz, approx. –10 dBs signal to the LINE IN terminals.<br>3. Adjust the recording level controls until the signal is available at –4 dBs at the LINE OUT terminals.<br>4. Adjust VR103 and VR203 until the VU meters deflect to 0. | VR103, 203 | 0 VU | Perform the adjustment when the parts are replaced. |

| Step | Item | Adjustment | Adjusting point | Standard value | Remarks |
|---|---|---|---|---|---|
| 4* | Checking record/playback frequency response | Record 1 kHz, 50 Hz and 12.5 kHz signals at an input level of 0 VU to −20 dB.<br>Play back the tape.<br>Check to see that the 50 Hz and 12.5 kHz signal output deviations fall within the standard range, using the 1 kHz signal output as a reference.<br>  | For SF/NORM tape; VR107, 207<br>For SA/$CrO_2$ tape; VR108, 208<br>For Metal tape; VR109, 209 | Reference frequency; 1 kHz<br>0 ± 3 dB at 50 Hz<br>0 ± 3 dB at 12.5 kHz | This checking should be performed for normal, chrome and metal tapes and for both right and left channels.<br>1. Bias current adjustment for a cassette deck should generally be performed referring to the record/playback frequency response. This is because the frequency response of a cassette deck depends more greatly upon the bias current than does that of an open reel deck.<br>The current measuring method described below is an alternative one.<br>2. If the bias current is not properly adjusted, the record and playback characteristics become as shown left. |
| 5 | Adjusting recording level | 1. Apply a 1 kHz, approx. −10 dB signal to the LINE IN terminals. Adjust the recording level controls until the signal is available at −4 dBs at the LINE OUT terminals.<br>2. After checking to see if the VU meters become to 0, record the signal applied to both left and right channels using normal tape.<br>3. Play back the recording part. Perform the recording signal adjustment with VR106 and VR206 so that the VU meters become to 0. | VR106, 206 | 0 VU | The level difference between left and right channels for SF/NORM tape, chrome tape and metal tape should be less than 1 dB (1 VU). Perform the adjustment using a normal tape, level difference between recording and playback for SA/$CrO_2$ and metal tapes, should be less than 1.5 dB, and that between left and right channels should also be less than 1 dB. |
| 6 | Checking record/playback signal distortion | 1. Record a 1 kHz, −4 dBs signal to LINE IN terminals and perform recording with the VU meter becomes to 0.<br>2. Play back the recorded part. Check the output with a distortion meter to see if the value conforms to the standard value. | | SF/NORM tape; Less than 1.2%<br>SA/$CrO_2$ tape; Less than 3%<br>Metal tape; Less than 2% | Be sure to perform this adjustment following bias current and recording level adjustments. |
| 7 | Checking signal to noise ratio in recording/playback | 1. Record a 1 kHz, 0 VU signal. Stop the input by disconnecting from the terminal to perform non-signal recording.<br>2. Play back the recorded part. Measure the 0 VU recording output and the non-signal recording output for comparison using an electronic voltmeter. Check to see if the value conforms to the standard value. | | SF/NORM, SA/$CrO_2$ and Metal tapes; More than 42 dB | Apply an output (−72 dBs) to the MIC terminals with the recording level controls set to maximum so that the VU meter becomes to 0. |
| 8 | Checking erasing coefficient | 1. Apply a 1 kHz signal to the LINE IN terminals. Adjust the recording level controls until the VU meter becomes to 0.<br>2. Perform recording with the signal enhanced by 20 dB.<br>3. Erase a part of the recording.<br>4. Measure the output difference between the erased part and non-erased part to compare with an electronic voltmeter. | | More than 65 dB | For the measuring, connect a band pass filter between the deck and the electronic voltmeter.<br>  |

| Step | Item | Adjustment | Adjusting point | Standard value | Remarks |
|---|---|---|---|---|---|
| 9 | Music Scan | Scan the first parts of reference tape TMT-6247, adjust VR501 so that the level of TP501 (1 pin of IC503) becomes +13 dBs. | VR501 | +13 dBs | When scanning the reference tape TMT-6237, don't become the stop or playback mode with first part of tape. When scanning the reference tape TMT-6247, becomes the stop and playback mode with the final part of tape. |

# Enclosure Assembly and Electrical Parts List

## (Except P.W. Board Parts)

⚠ parts are safety assurance parts.
When replacing those parts, make sure to use the specified one.

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|---|---|---|---|---|
| 1 | *VKL4666-001 | Guide Bracket | | 1 |
| 2 | *VKS3116-001 | Remote Bar | for Power Switch | 1 |
| 3 | VYTS404-001 | Lock Plate | | 1 |
| 4 | *VKH3001-032 | Flange Collar | | 1 |
| 5 | *VJD3213-002 | Jack Escutcheon | | 1 |
| 6 | *VJD2146-001 | Meter Escutcheon | | 1 |
| 7 | *VXP3051-002 | Push Knob | | 1 |
| 8 | *VKW3001-045 | Compression Spring | | 1 |
| 9 | VYSA2R6-004 | Spacer | for Push Knob | 1 |
| (10–12, 100,101) | *ZCKDA55Y-CBF-1 | Front Plate Sub Ass'y | | 1 set |
| 10 | *VJC1094-002 | Front Plate | KD-A55A/B/E/U -003 = KD-A55C/J | 1 |
| 11 | *VJD3212-001 | Lever Escutcheon | | 1 |
| 12 | *VYTA451-001 | Blind | | 1 |
| 13–17 | *ZCKDA55Y-CBF-2 | Mecha. Cover Sub Ass'y | | 1 set |
| 13 | *VJD2147-002 | Mecha. Cover | | 1 |
| 14 | *VJK4118-001 | Counter Lens | | 1 |
| 15 | *VJD4349-001 | Disk Plate | | 1 |
| 16 | *VJD4348-001 | Tape Indicator | | 1 |
| 17 | VYTN402-001 | Sheet | | 1 |
| 18 | VMW4566-001 | P.W. Board | for Back Light | 1 |
| 19 | QLP3601-003 | Lamp | " | 1 |
| 20 | *VXP4061-00A | Push Knob Ass'y | for Eject | 1 |
| 21 | *VKW3001-028 | Compression Spring | | 1 |
| 22 | *VKL3226-00B | Bracket (R) Ass'y | | 1 |
| 23 | *VKL4756-00A | Eject Lever Ass'y | | 1 |
| 24 | *VKL4669-002 | Eject Arm | | 1 |
| 25 | VKH4253-001 | Flange Collar | Eject Arm | 1 |
| 26 | *VKL4754-001 | Bracket | for Cassette Holder | 1 |
| 27 | VKL4275-001 | Bracket | for Voltage Selector (KD-A55U) | 1 |
| 28 | *VKS4200-002 | Lock Lever | | 1 |
| 29 | *VKH4261-001 | Shaft | | 1 |
| 30 | *VKW4196-001 | Torsion Spring | | 1 |
| 31 | *VKW4195-001 | Wire | | 1 |
| 32 | *VJT2038-002 | Cassette Holder | | 1 |
| 33 | *VKY4173-002 | Cassette Spring | | 2 |
| 34 | *VKL3228-00A | Holder Arm Ass'y | | 1 |
| 35 | *VKW4194-004 | Holder Spring | | 1 |
| 36–38 | *ZCKDA55Y-CCA | Cassette Lid Ass'y | | 1 set |
| 36 | *VJT3049-001 | Cassette Lid | | 1 |
| 37 | *VJT3050-002 | Lid Plate | KD-A55A/B/E/U -001 = KD-A55C/J | 1 |
| 38 | TJL344518-02 | SA Mark | for Lid Plate | 1 |
| 39 | VYSA1R8-045 | Spacer | | 4 |
| 40 | *VKL4667-001 | Bracket (L) | | 1 |
| 41 | *VKS4002-00A | Air Dump Ass'y | | 1 |
| 42 | *VJD2148-001 | Button Case | | 1 |
| 43 | VXP3046-001 | Push Button | for REW | 1 |
| 44 | " -002 | " | for FF | 1 |
| 45 | " -003 | " | for PLAY | 1 |
| 46 | " -004 | " | for STOP | 1 |
| 47 | " -005 | " | for REC | 1 |
| 48 | " -006 | " | for PAUSE | 1 |
| 49 | VXP3056-001 | " | for REC. MUTE | 1 |
| 50 | " -001 | " | for SCAN | 2 |

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|---|---|---|---|---|
| 51 | *VKL4689-001 | Bracket | | 1 |
| 52 | *VXS4031-001 | Slide Knob | for Timer & Memory | 2 |
| 53 | *VXL4101-00A | Knob Ass'y | for Input (L) | 1 |
| 54 | *VXL4102-00A | " | for Input (R) | 1 |
| 55 | *VXL4103-00A | " | for Output | 1 |
| 56 | *VXQ4030-001 | Lever Knob | | 3 |
| 57 | *VKS2107-001 | Lamp Hood | | 1 |
| 58 | *VGM0110-013 | Level Meter | | 2 |
| 59 | *VKL1138-001 | Top Cover | | 1 |
| 60 | VKZ3001-002 | Special Screw | | 4 |
| 61 | *VKL1167-001 | Bottom Cover | | 1 |
| 62 | VJF4003-001 | Foot | | 4 |
| 63 | *VYN2059-003GA | Name Plate | KD-A55A | 1 |
| | VYN2059-002GA | " | KD-A55B | 1 |
| | " -004GA | " | KD-A55C | 1 |
| | " -005GA | " | KD-A55E | 1 |
| | " -006GA | " | KD-A55J | 1 |
| | " -007GA | " | KD-A55U | 1 |
| 64 | E48729-002 | Plastic Rivet | for Name Plate | 2 |
| 65 | VKS4001-001 | Button Spacer | | 9 |
| 66 | WBS3000 | Washer | for Earth | 1 |
| 67 | ⚠ TAW000504-01 | Connector | for Power Cord | 1 |
| 68 | ⚠ UPC78M15H | IC | IC903 | 1 |
| 69 | VKL4771-001 | Heat Sink | for IC903 | 1 |
| 70 | QHW3059-001 | Wire Clamp | | 2 |
| 71 | *VKL1164-00A | Amp Chassis Ass'y | | 1 |
| 72 | *VKL3224-001 | Power Bracket | for Power Switch | 1 |
| 73 | ⚠ *QSP2111-011 | Push Switch | for Power Switch KD-A55A/E | 1 |
| | ⚠ " -011BS | " | " KD-A55B | 1 |
| | ⚠ QSP1110-222 | " | " KD-A55C/J | 1 |
| | ⚠ " -221 | " | " KD-A55U | 1 |
| 74 | QFZ9010-103 | M.P. Capacitor | C01, 02 | 2 |
| 75 | ⚠ QRD149J-820S | Unflammable Resistor | 82 Ω, ¼ W | 1 |
| 76 | ⚠ VKZ4001-011 | Wire Holder | | 1 |
| 77 | ⚠ *VTP66C3-023B | Power Transformer | KD-A55A/E | 1 |
| | ⚠ *VTP66C3-021BBS | " | KD-A55B | 1 |
| | ⚠ *VTP66A3-011K | " | KD-A55C/J | 1 |
| | ⚠ VTP66U3-021B | " | KD-A55U | 1 |
| 78 | F4932-002 | Special Washer | for Power Transformer | 2 |
| 79 | VKZ4001-011 | Wire Holder | | 1 |
| 80 | *VKL1166-001 | Front Bracket | | 1 |
| 81 | VMW4569-001 | P.W. Board | for Timer Switch | 1 |
| 82 | *QSS2301-102 | Slide Switch | | 1 |
| 83 | QMG1121-003 | Lamp Holder | | 1 |
| 84–85 | *VGZ0001-003 | Lamp Ass'y | | 1 set |
| 84 | *QLP4101-008 | Lamp | | 1 |
| 85 | VJZ4006-002 | Lamp Shade | | 1 |
| 86 | *VMW4568-001 | P.W. Board | for Memory Switch | 1 |
| 87 | *QSS2301-102 | Slide Switch | | 1 |
| 88 | *VKL2122-001 | Rear Panel | KD-A55C/J | 1 |
| | VKL2122-002 | " | KD-A55A/B/E/U | 1 |
| 89 | ⚠ QMP2560-200 | Power Cord with Plug | KD-A55A | 1 |
| | ⚠ QMP9017-008BS | Power Cord | KD-A55B | 1 |
| | ⚠ QMP1200-200 | Power Cord with Plug | KD-A55C/J | 1 |
| | ⚠ QMP3900-200 | Power Cord | KD-A55E | 1 |
| | ⚠ QMP7600-200 | Power Cord with Plug | KD-A55U | 1 |
| 90 | ⚠ QHS3876-162 | Strain Relief | KD-A55A/E/C/J/U | 1 |
| | ⚠ QHS3876-162BS | " | KD-A55B | 1 |

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|---|---|---|---|---|
| 91 | QMC0888-008 | DIN Socket Ass'y | for Remote Control | 1 |
| 92 | *VST0004-001 | Switch Unit Ass'y | | 1 |
| 93 | VKW3002-045 | Tension Spring | for Eject Lever x 1, for Lever x 1 | 2 |
| 94 | QVE5A3A-024F | V. Resistor | Input Level Control | 1 |
| 95 | VKL4713-001 | Bracket | | 1 |
| 96 | QHW3059-001 | Wire Clamp | | 1 |
| 97 | ⚠ QSS2325-011 | Slide Switch | Power Selector KD-A55A/E | 1 |
| | ⚠ QSS2325-011BS | " | " KD-A55B | 1 |
| | ⚠ QSR0084-001 | Voltage Select Switch | " KD-A55U | 1 |
| 98 | VYSA1R8-041 | Spacer | | 1 |
| 99 | VYSA1R8-044 | " | | 2 |
| 100 | *VJD3224-001 | Side Fitting | KD-A55A/B/E/U | 1 |
| 101 | *VJD3224-002 | " | KD-A55A/B/E/U | 1 |
| 102 | VKZ4011-001 | Sheet | Left Bracket | 1 |
| 103 | VKZ4012-001 | " | Right Bracket | 1 |
| 104 | VKL4752-001 | Lever | | 1 |
| 105 | VKH4253-001 | Collar | | 1 |
| 106 | VKZ4128-001 | Special Screw | | 1 |
| 107 | VKH3005-036 | Flange Shaft (B) | | 1 |
| 108 | — | — | Blank No. | |
| 109 | VKZ4010-001 | Sheet | for Meter | 2 |
| 110 | VYSH106-028 | Spacer | for Front Plate | 7 |
| 111 | VYSH108-008 | Spacer | for Top Cover | 1 |
| 112 | VYSH104-011 | Spacer | for Top Cover | 2 |
| 113 | ⚠ *VMW4570-001 | P.W. Board | for Power Switch | 1 |
| 114 | E40130-001 | Tab | | 4 |
| 131 | Q03095-205 | Washer | for Back Light | 1 |
| 132 | REE2000 | E-ring | for Flange Shaft | 1 |
| 133 | REE2500 | " | for Eject Knob x 1, Eject Lever x 1, Air Dump Ass'y x 1 Shaft x 1, Flange Shaft x 1 | 5 |
| 134 | — | — | Blank No. | |
| 135 | DPSP4010ZS | Screw | for Power Transformer | 2 |
| 136 | LPSP2604Z | Screw | for Memory Switch x 2, Slide Switch x 2, Timer Switch x 2 | 6 |
| 137 | LPSP2605Z | " | for Front Plate — Bracket | 4 |
| 138 | LPSP2606C | " | for Mecha. Front Bracket | 2 |
| 139 | LPSP2606Z | " | for Bracket x 3, Voltage Select SW (KD-A55U) x 2 | 5 |
| 140 | LPSP3006VS | " | for Lever Switch | 3 |
| 141 | LPSP3008ZS | " | for Power Switch x 2, Lock Plate x 1 | 3 |
| 142 | SBSB2610Z | Tapping Screw | for P.W.B. | 3 |
| 143 | SBSB3006V | " | for Main P.W.B. x 3, Mecha. Control P.W.B. x 4 | 7 |
| 144 | SBSB3006Z | " | for Switch Bracket x 3, Wire Holder x 6, Guide Bracket x 1, Heat Sink x 2 | 12 |
| 145 | SBSB3008V | " | for LED P.W.B. | 2 |
| 146 | SBSB3008Z | " | for Back Light x 1, Main P.W.B. x 1 | 2 |
| 147 | SDSP2605R | Screw | for DIN Socket (Remote Control) | 2 |
| 148 | SDSP3006CS | " | for Counter Bracket — Front Bracket | 1 |
| 149 | SDSP3006RS | " | for Voltage Select Switch (KD-A55A/B/E) | 2 |
| 150 | SDSB3006C | " | for Mecha. — Amp Chassis | 4 |
| 151 | SDSB3006R | " | for Rear Panel | 5 |
| 152 | SDSB3006Z | " | for Front Plate — Front Bracket x 5, Front Bracket — Amp Chassis x 4, Guide Bracket x 1 | 10 |
| 153 | SDSB3008R | " | for Jack Escutcheon | 2 |
| 154 | SDSB3008Z | " | for Meter Escutcheon — Front Bracket x 2, Bottom Cover x 5 | 7 |
| 155 | SSSP2604Z | " | for Eject Arm | 1 |
| 156 | SSSP2605R | " | for Meter Cover x 4, Cassette Holder x 4, Bracket x 3 | 11 |
| 157 | SSSP2606C | " | for Bracket | 1 |

# Mechanical Component Parts List

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|---|---|---|---|---|
| 1 | VKL1118-00D | Chassis Base Ass'y | | 1 |
| 2 | VKL4361-002 | Brake Bar | | 1 |
| 3 | VYSF101-012 | Spacer | | 2 |
| 4 | VKW4145-001 | Brake Bar Spring | for Brake Bar | 1 |
| 5 | VKL4362-001 | Lock Bar | | 1 |
| 6 | VKZ4005-001 | Stopper | for Brake Bar | 1 |
| 7 | VKS4166-001 | Cassette Switch Lever | | 1 |
| 8 | VKS4135-00A | Lock Lever Ass'y | | 1 |
| 9 | VKL4366-00A | Play Arm Ass'y | | 1 |
| 10 | *VKL4681-001 | Pause Solenoid Lever | | 1 |
| 11 | VKH3001-027 | Flange Collar | | 1 |
| 12 | VKY4174-001 | Cassette Spring | | 1 |
| 13 | VKS3109-001 | Switch Holder (L) | | 1 |
| 14 | VMW4522-001 | P.W. Board (L) | | 1 |
| 15 | QSP0029-001 | Slide Switch | | 2 |
| 16 | QMV5004-004 | Connector | | 1 |
| 17 | *VKH4264-001 | Shaft | | 1 |
| 18 | VKS4136-002 | Switch Lever | | 1 |
| 19 | VKW4138-001 | Pressure Lever Spring | | 1 |
| 20 | VKL4399-001 | Eject Safety Lever | | 1 |
| 21 | VKW4142-001 | Connecting Wire | | 1 |
| 22 | VKW3002-039 | Spring | | 1 |
| 23 | GPSA2608Z | Tapping Screw | | 1 |
| 24 | VKH3001-027 | Collar | | 1 |
| 25 | VKZ3003-001 | Rubber Tube | | 3 |
| 26 | *VKL4676-00A | Slide Base Ass'y | | 1 |
| 27 | *VKP4108-00A | Pinch Roller Arm Ass'y | | 1 |
| 28 | *VKW4202-001 | Pinch Roller Spring | | 1 |
| 29 | VKL4678-002 | Kick Lever | | 1 |
| 30 | VKW3002-004 | Spring | | 1 |
| 31 | VKW3002-044 | Tension Spring | for Slide Base | 1 |
| 32 | TJN265559-02 | Silencer | " | 1 |
| 33 | *VKS2108-001 | Head Mount Base | | 1 |
| 34 | *VKS4202-002 | Head Base | | 1 |
| 35 | SPSK1730M | Mini Screw | | 2 |
| 36 | *ZMM074401-0D | R/P Head Ass'y | | 1 |
| 37 | *ZMM090414-0A | E. Head Ass'y | | 1 |
| 38 | *VGH0214-101 | Sensor Head Ass'y | | 1 |
| 39 | *VKL4679-00B | Slide Plate Ass'y | | 1 |
| 40 | VKW3001-020 | Compression Spring | for R/P Head and E. Head | 2 |
| 41 | VKH4215-001 | Head Collar | | 1 |
| 42 | VMZ0008-00A | Wire Ass'y | | 1 |
| 43 | VKL3155-00A | Reel Disk Bracket Ass'y | | 1 |
| 44 | VKR4113-00A | Take-up Reel Ass'y | | 1 |
| 45 | VKR4118-00A | Supply Reel Ass'y | | 1 |
| 46 | VKS4130-001 | Back Tension Base | | 1 |
| 47 | VKW3001-026 | Compression Spring | for Back Tension | 1 |
| 48 | VKS4131-001 | Reel Stopper | | 2 |
| 49 | VKS4151-00B | Idler Ass'y Unit | | 1 |
| 50 | VKW4134-001 | Idler Spring | | 1 |
| 51 | MDN-7V1-2 | Reel Motor | | 1 |
| 52 | VKR4121-001 | Motor Pulley | | 1 |
| 53 | YRS2603B | Screw | for Motor Pulley | 1 |
| 54 | VKW4149-001 | Play Solenoid Spring | | 1 |
| 55 | VKF3107-00B | Flywheel Ass'y | | 1 |

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|---|---|---|---|---|
| 56 | VKF3103-00B | Capstan Metal | | 1 |
| 57 | T30301-137 | Spring | | 1 |
| 58 | VKB3001-007 | Capstan Belt | | 1 |
| 59 | *VKL4684-00A | Hold Base Ass'y | | 1 |
| 60 | VKL4368-002 | Play Solenoid Lever | | 1 |
| 61 | VKW4137-001 | Connecting Wire | | 1 |
| 62 | TEP357456-01 | Thrust Screw | | 1 |
| 63 | VKL4398-002 | Play Solenoid Bracket | | 1 |
| 64 | VGP0301-002 | DC Solenoid Ass'y | | 1 |
| 65 | MMC-6A2HS | DC Motor | for Capstan | 1 |
| 66 | VKS4139-002 | Motor Pulley | | 1 |
| 67 | TER357465-03 | Cushion Rubber | | 3 |
| 68 | VKZ4109-001 | Motor Screw | | 3 |
| 69 | TFB345469-01 | Rubber Stopper | | 1 |
| 70 | VKZ4001-011 | Wire Holder | | 1 |
| 71 | VGP0201-005 | DC Solenoid Ass'y | for Brake | 1 |
| 72 | VGP0201-006 | " | for Sensor Head | 1 |
| 73 | VKL4478-001 | Pause Solenoid Bracket | | 1 |
| 74 | VKL4363-002 | Lock Solenoid Lever | | 1 |
| 75 | VKH4194-002 | Shaft | | 1 |
| 76 | VKC6111-001T | Counter Ass'y | | 1 |
| 77 | VKB3000-012 | Counter Belt | | 1 |
| 78 | VMW4530-002 | P.W. Board | | 1 |
| 79 | DN6835 | Hall IC | | 1 |
| 80 | QMV5005-003 | Connector | | 1 |
| 81 | VKZ4001-010 | Wire Holder | | 1 |
| 82 | *VKL4671-001 | Guide Bracket | | 1 |
| 83 | *VKL4672-00A | Slide Lever Ass'y | | 1 |
| 84 | VKH3001-027 | Flange Collar | | 1 |
| 85 | *VKL4675-001 | Push Lever Bracket | | 1 |
| 86 | VKW3002-045 | Spring | | 1 |
| 87 | VKL3230-002 | Side Bracket (R) | | 1 |
| 88 | VKL4403-00B | Shift Arm Ass'y | | 1 |
| 89 | VKL4682-001 | Side Bracket (L) | | 1 |
| 90 | VKW4156-001 | Shift Arm Spring | | 1 |
| 91 | *VKL4701-001 | Shift Lever | | 1 |
| 92 | VKH3001-027 | Flange Collar | | 1 |
| 93 | THC037417-02 | Head Plate | | 1 |
| 94 | VHK3001-033 | Flange Collar | | 1 |
| 95 | VKY4182-001 | C. Spring | | 1 |
| 101 | REE2000 | E-ring | Pinch Roller Arm | 1 |
| 102 | REE2500 | " | Lock Lever Ass'y x 1, Kick Lever x 1, Play Solenoid Lever x 1, Lock Solenoid Lever x 1 | 4 |
| 103 | Q03093-522 | Washer | Flywheel | 1 |
| 104 | " -621 | " | " | 1 |
| 105 | " -827 | " | " | 1 |
| 106 | WNB2600N | " | Slide Base Ass'y | 1 |
| 107 | GPSA2612Z | Tapping Screw | Slide Base | 4 |
| 108 | SBSB2006Z | " | Cassette Spring | 2 |
| 109 | SBSB2616Z | " | Hold Base | 4 |
| 110 | LPSP2604Z | Screw | Reel Motor x 3, Play Solenoid Bracket x 3, Rubber Stopper x 1, Pause Solenoid Bracket x 2 | 9 |

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|---|---|---|---|---|
| 111 | LPSP2605Z | Screw | Pause Solenoid Lever x 1, Wire Ass'y x 1, Hold Base x 1, Guide Bracket x 3, Slide Lever Ass'y x 1, Side Bracket (R) x 1, Side Bracket (L) x 3 | 12 |
| 112 | LPSP2606Z | " | Capstan Metal x 3, Shift Lever x 1 | 4 |
| 113 | LPSP3004ZS | " | Solenoid (for Sensor Head) | 2 |
| 114 | SPSP2004Z | " | Sensor Head | 1 |
| 115 | SPSP2605Z | " | Switch Holder x 3, Reel Ass'y Unit x 4 | 7 |
| 116 | SPSP2006Z | " | Head Mount Base | 2 |
| 117 | SPSP3003ZS | " | Solenoid x 2, Brake Solenoid x 2 | 4 |
| 118 | SSSP3006Z | " | Counter Ass'y | 2 |
| 119 | SPSX2010Z | " | Wire Ass'y | 1 |
| 120 | SDSP2605Z | " | Hall IC P.W. Board | 1 |

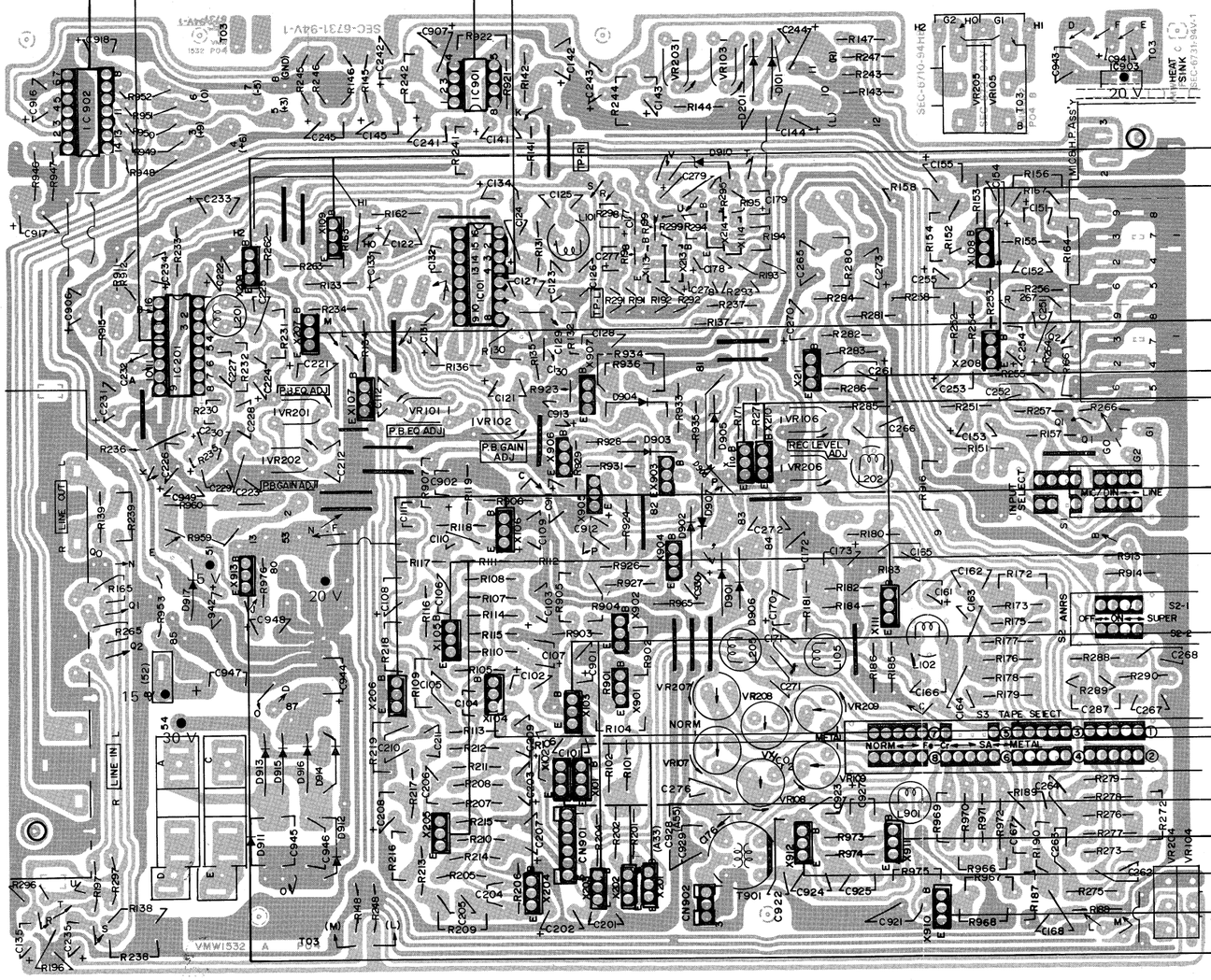
# Main Amp. P.W. Board Parts

| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IC101 | C. Tester | 5.7 | 5.7 | 9.0 | 6.0 | 9.3 | 9.3 | 9.2 | 9.2 | 9.3 | 19.4 | 1.4 | 9.1 | 9.5 | 9.6 | 9.6 | 0.4 |
| IC201 | E. Voltmeter | 9.1 | 8.5 | 9.0 | 8.4 | 9.3 | 9.3 | 9.2 | 9.2 | 9.3 | 19.4 | 1.5 | 9.1 | 9.5 | 9.6 | 9.6 | 0.5 |
| IC902 | C. Tester | 0.02 | 0 | 0 | 2.7 | 2.7 | 0 | 0 | 14.8 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.03 | | |
| | E. Voltmeter | 0.02 | 0 | 0 | 2.7 | 2.7 | 0 | 0 | 14.8 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.03 | | |
| IC901 | C. Tester | 9.6 | 9.6 | 8.0 | 0 | 8.0 | 9.6 | 9.6 | 19.2 | | | | | | | | |
| | E. Voltmeter | 9.6 | 9.6 | 9.6 | 0 | 9.6 | 9.6 | 9.6 | 19.2 | | | | | | | | |

Voltage values are measured by the following meter without input signal at playback mode.

C. Tester = Circuit Tester (20 kΩ impedance)

E. Voltmeter = Electronic Voltmeter



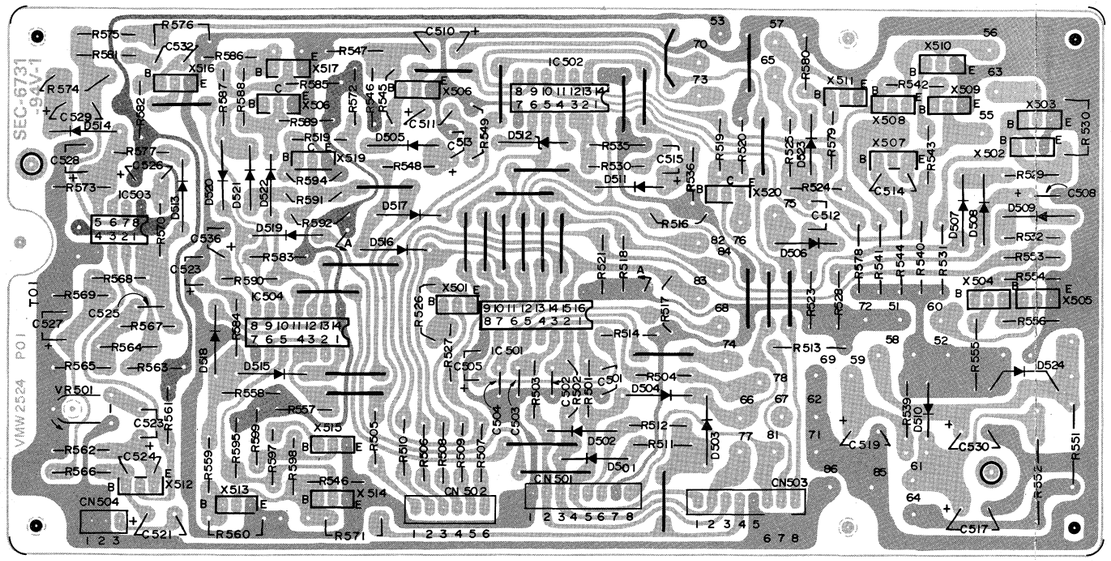

| | C. Tester | | | E. Voltmeter | | |
|---|---|---|---|---|---|---|
| | E | C | B | E | C | B |
| X109 209 | 0 | 0 | 0 | 0 | 0 | 0 |
| X108 208 | 1.7 | 6.8 | 1.6 | 1.7 | 6.8 | 2.3 |
| X107 207 | 0 | 0 | 0 | 0 | 0 | 0 |
| X111 211 | 1.7 | 6.4 | 0.2 | 1.7 | 6.4 | 2.3 |
| X110 210 | 0 | 0 | 0 | 0 | 0 | 0 |
| X106 206 | 0 | 0 | 0.6 | 0 | 0 | 0.6 |
| X105 205 | 1.0 | 12 | 1.6 | 1.0 | 12 | 16.3 |
| X103 203 | 0 | 0 | 0.7 | 0 | 0 | 0.7 |
| X104 204 | 0.03 | 1.63 | 0.3 | 0.03 | 1.63 | 0.6 |
| X101 201 | 0 | 0 | 0 | 0 | 0 | 0 |
| X102 202 | 0 | 0 | 0 | 0 | 0 | 0 |

| | C. Tester | | | E. Voltmeter | | |
|---|---|---|---|---|---|---|
| | E | C | B | E | C | B |
| X911 | 0.5 | 18.4 | −1.2 | 0.5 | 18.4 | −1.2 |
| X912 | 0.5 | 18.4 | −1.2 | 0.5 | 18.4 | −1.2 |
| X910 | 0 | 0 | 0.7 | 0 | 0 | 0.7 |
| X913 | 19.2 | 20.0 | 19.8 | 19.2 | 20.0 | 19.8 |

| | X901 | | | X902 | | | X903 | | | X904 | | | X905 | | | X906 | | | X907 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B |
| C. Tester | 20.0 | 0 | 19.8 | 0 | 19.8 | 0 | 0.03 | 19.9 | 0.45 | 0 | 6.4 | 0.03 | 0 | 20 | | 20 | 0 | | 0 | 0 | 0.7 |
| E. Voltmeter | 20.0 | 0 | 19.8 | 0 | 19.8 | 0 | 0.03 | 19.9 | 0.45 | 0 | 6.4 | 0.03 | 0 | 20 | | 20 | 0 | | 0 | 0 | 0.7 |

No. 4188

# Mecha. Control P.W. Board Parts




| | | STOP | FF | REW | PLAY | REC | PLAY PAUSE | REC PAUSE | Forward Scan | Reverse Scan | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| IC502-2 | Input | L | H | H | H | H | L | L | H | H | Same as BRK OUT (pin 10 of IC501) |
| | Output | H | L | L | L | L | H | H | L | L | Inversion of BRK OUT (pin 10 of IC501) |
| IC502-4 | Input | H | L | L | L | L | H | H | L | L | Same as output of IC502-2 |
| | Output | L | H | H | H | H | L | L | H | H | Inversion of output of IC502-2 |
| IC502-6 | Input | H | H | H | H | H | H | H | L | L | SCAN Solenoid driver |
| | Output | L | L | L | L | L | L | L | H | H | |
| X511 | B | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0.7 | |
| | C | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 0 | 0 | |
| X801 | B | 4.4 V for about 2 seconds after power supply starts and 5 V thereafter | | | | | | | | | Timer standby |
| | C | 5 V for about 2 seconds after power supply starts and 0 V thereafter | | | | | | | | | |
| X802 | B | 0.6 V for about 2 seconds after power supply starts and 0 V thereafter | | | | | | | | | |
| | C | 0 V for about 2 seconds after power supply starts and 5 V thereafter | | | | | | | | | |
| X506 | B | 0.7 | – | – | – | – | 0.7 | 0.7 | Same as FF & REW | | Auto stop |
| | C | 0 | ≒0 | | | | 0 | 0 | ≒0 | | |
| IC502-1 | Input | 0 | ≒0 | | | | 0 | 0 | ≒0 | | Same as level of X506's collector |
| | Output | H | H | H | H | H | H | H | H | H | Turns to "L" briefly, 1 second after tape travel stops. |
| | | Approx. 2.5 V when memory switch is OFF and approx. 4.5 V when memory switch is set to STOP or PLAY. | | | | | | | | | |
| X502 | B | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | PLAY solenoid driver |
| | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| X503 | B | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Gets inverted for about 0.2 second when mode changes: STOP to PLAY (REC) or PAUSE (REC/PAUSE) to PLAY (REC). |
| | C | 30 | 25 | 25 | 25 | 25 | 30 | 30 | 25 | 25 | |
| X504 | B | 0 | 1.4 | 1.4 | 1.4 | 1.4 | 0 | 0 | 1.4 | 1.4 | Brake solenoid driver |
| | C | 15 | 0.8 | 0.8 | 0.8 | 0.8 | 15 | 15 | 0.8 | 0.8 | |
| | E | 0 | 0.7 | 0.7 | 0.7 | 0.7 | 0 | 0 | 0.7 | 0.7 | |
| X505 | B | 0 | 0.7 | 0.7 | 0.7 | 0.7 | 0 | 0 | 0.7 | 0.7 | |
| | C | 30 | 0 | 0 | 0 | 0 | 30 | 30 | 0 | 0 | |
| X501 | B | 4.5 | 0.7 | 5.0 | 0 | 0 | 4.5 | 4.5 | 0.7 | 5.0 | FF LED driver |
| | C | more than 30 | 0 | more than 3 | more than 3 | more than 3 | more than 3 | more than 3 | 0 | more than 3 | |
| | E | 5.0 | 0 | 5.0 | 0 | 0 | 5.0 | 5.0 | 0 | 5.0 | |

## IC501 (M54886P) PIN ASSIGNMENT

| Pin No. | Label | | Description |
|---|---|---|---|
| 1 | PAUSE/$\overline{\text{STOP}}$ | Operation inputs | Input terminal which selects PAUSE mode at "H" level and STOP mode at "L" level; also remains open when there is no input signal. |
| 2 | FF/$\overline{\text{PLAY}}$ | | Input terminal which selects FF mode at "H" level and PLAY mode at "L" level. |
| 3 | REW/$\overline{\text{REC}}$ | | Input terminal which selects REW mode at "H" level and REC mode at "L" level. Input $\overline{\text{REC}}$ is effective only when PAUSE or $\overline{\text{PLAY}}$ is input simultaneously. |
| 4 | TIMER START | | Input terminal which selects on operating mode just after power supply starts. "H" level selects PLAY mode, "L" level REC mode, and open state STOP mode. |
| 5 | $\overline{\text{AUTO}}$ | Control inputs | Input terminal which changes operating mode; PLAY to REW, REW to PLAY, and FF to STOP, as a negative pulse (⌐└┘) is detected. |
| 6 | $\overline{\text{ANTI}} \cdot \overline{\text{REC}}$ | | Input terminal which inhibits recording at "L" level. |
| 7 | T | | Connects the external capacitor (resistor) of an oscillator. |
| 8 | GND | | Ground |
| 9 | MUTE OUT | Outputs | Muting signal output |
| 10 | BRK OUT | | Reel disk brake signal output |
| 11 | $\overline{\text{MOTOR(F)}}$ OUT | | Reel motor forward drive signal output |
| 12 | $\overline{\text{MOTOR(R)}}$ OUT | | Reel motor reverse drive signal output |
| 13 | $\overline{\text{PLAY}}$ OUT | | PLAY signal output |
| 14 | $\overline{\text{PAUSE}}$ OUT | | PAUSE signal output |
| 15 | $\overline{\text{REC}}$ OUT | | Recording signal output |
| 16 | VCC | | Power |

## OUTPUT LEVELS OF IC501(M54886P) IN EACH OPERATING MODE

| Output / Pin / Mode | $\overline{\text{PAUSE}}$ | MUTE * | $\overline{\text{REC}}$ | $\overline{\text{PLAY}}$ | BRK * | $\overline{\text{MOTOR(F)}}$ | $\overline{\text{MOTOR(R)}}$ |
|---|---|---|---|---|---|---|---|
| | 14 | 9 | 15 | 13 | 10 | 12 | 11 |
| STOP | H | H | H | H | L | H | H |
| FF | H | H | H | H | H | L | H |
| REW | H | H | H | H | H | H | L |
| PLAY | H | L | H | L | H | L | H |
| REC | H | L | L | L | H | L | H |
| REC/PAUSE | L | L | L | H | L | H | H |
| PAUSE | L | H | H | H | L | H | H |

MUSIC SCAN – (Forward) ..... Same as FF mode
MUSIC SCAN – (Reverse) ..... Same as REW mode
Signals marked with * are active at "H" and other at "L".

# Main Amp. P.W. Board Parts List

⚠ parts are safety assurance parts.
When replacing those parts, make sure to use the specified one.

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|---|---|---|---|---|
| | VMW1532-004 | P.W. Board | | 1 |
| R101, 201, 946 | QRD141J-153SY | C. Resistor | 15 kΩ ¼ W | 3 |
| R102,202,139,239,143,243,155, 255,158,258,901,197,297 | " -332SY | " | 3.3 kΩ " | 13 |
| R116, 216, 117, 217, 131, 231, 134, 234, 163, 263, 171, 271, 198, 298 | " -472SY | " | 4.7 kΩ " | 14 |
| R105, 205, 196, 296 | " -224SY | C. Resistor (Low Noise) | 220 kΩ " | 4 |
| R106, 206, 118, 218, 906 | " -121SY | C. Resistor | 120 Ω " | 5 |
| R107, 207, 151, 251, 172, 272 | " -823SL | C. Resistor (Low Noise) | 82 kΩ " | 6 |
| R108, 208, 175, 275 | " -273SL | C. Resistor | 27 kΩ " | 4 |
| R109, 209, 152, 252, 199, 299 | " -334SY | " | 330 kΩ " | 6 |
| R110, 210, 167, 267 | " -101SY | " | 100 Ω " | 4 |
| R111, 211, 118, 218, 137, 237, 902, 903, 904, 907, 926, 928, 929, 966, 192, 292 | " -103SY | " | 10 kΩ | 16 |
| R112,212,181,281,935,194,294 | " -222SY | " | 2.2 kΩ " | 7 |
| R115, 215, 162, 262 | QRD147J-102S | " | 1 kΩ " | 4 |
| R114, 214, 144, 244 | " -681SY | " | 680 Ω " | 4 |
| R119, 219, 176, 276 | " -184SY | " | 180 kΩ " | 4 |
| R130, 230 | QRD143J-121S | " | 120 Ω " | 2 |
| R132, 232 | QRD141J-680SY | " | 68 Ω " | 2 |
| R133, 233 | " -122SY | " | 1.2 kΩ " | 2 |
| R135 | QRD147J-102S | " | 1 kΩ " | 1 |
| R235, 165, 265 | QRD143J-102S | " | 1 kΩ " | 3 |
| R136 | QRD147J-155S | " | 1.5 MΩ " | 1 |
| R236 | QRD143J-155S | " | 1.5 MΩ " | 1 |
| R193, 293 | " -104S | " | 100 kΩ " | 4 |
| R141, 241 | " -753SY | " | 75 kΩ " | 2 |
| R142, 242 | QRD142J-154S | " | 150 kΩ " | 2 |
| R145, 245, 154, 254, 184, 284, 180, 280, 924, 933 | QRD141J-223SY | " | 22 kΩ " | 10 |
| R146, 246, 947, 968, 927 | " -272SY | " | 2.7 kΩ " | 5 |
| R147, 247 | QRD142J-151S | " | 150 Ω " | 2 |
| R153, 253, 973, 974 | QRD141J-473SY | " | 47 kΩ " | 4 |
| R187, 287 | " -820SY | " | 82 Ω " | 2 |
| R157, 257, 189, 289, 190, 290, 912, 138, 238, 183, 283 | " -104SY | " | 100 kΩ " | 11 |
| R164, 264 | " -820SY | " | 82 Ω " | 2 |
| R173, 273 | QRD147J-105S | C. Resistor | 1 MΩ " | 2 |
| R177, 277 | " -563SY | " | 56 kΩ " | 2 |
| R178, 278 | " -124SY | " | 120 kΩ " | 2 |
| R179, 279, 921, 922 | QRD141J-683SY | " | 68 kΩ " | 4 |
| R182, 282 | QRD142J-125S | " | 1.2 MΩ " | 2 |
| R185, 285 | QRD141J-152SY | " | 1.2 kΩ " | 2 |
| R186, 286 | QRD147J-221S | " | 220 Ω " | 2 |
| R905 | ⚠QRD149J-331S | Unflammable Resistor | 330 Ω " | 1 |
| R911, 113, 213 | QRD147J-123S | C. Resistor | 12 kΩ " | 3 |
| R913, 925 | QRD141J-392SY | " | 3.9 kΩ " | 2 |
| R914 | QRD147J-561S | " | 560 Ω " | 1 |
| R915,104,204,166,266,195,295 | " -822S | " | 8.2 kΩ " | 7 |
| R916 | QRD121K-122 | " | 1.2 kΩ " | 1 |
| (R917) | V44611-005 | Formed Bus Wire | | 1 |
| R923 | QRD143J-221S | C. Resistor | 220 Ω ¼ W | 1 |
| R934, 936 | QRD141J-562SY | " | 5.6 kΩ " | 2 |
| R931 | ⚠QRD149J-221S | Unflammable Resistor | 220 Ω " | 1 |
| R156, 256 | QRD141J-471S | C. Resistor | 470 Ω " | 2 |
| R191, 291 | QRD143J-394S | " | 390 kΩ " | 2 |

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|---|---|---|---|---|
| R948–952 | QRD141J-560SY | C. Resistor | 56 Ω ¼ W | 5 |
| R953 | QRD126K-560 | " | 56 Ω ½ W | 1 |
| R959 | ⚠QRG019J-220 | OMF Resistor | 22 Ω 1 W | 1 |
| R960 | ⚠ " -121 | " | 120 Ω " | 1 |
| R965 | QRD147J-221S | C. Resistor | 120 Ω ¼ W | 1 |
| R967 | QRD141J-222SY | " | 2.2 kΩ " | 1 |
| R969 | ⚠QRD149J-121S | Unflammable Resistor | 120 Ω " | 1 |
| R970 | ⚠QRD126K-181 | " | 180 Ω ½ W | 1 |
| R971 | ⚠ " -820S | " | 82 Ω " | 1 |
| R972 | ⚠QRD149J-390S | " | 39 Ω ¼ W (KD-A55C/J/U) | 1 |
| | ⚠QRH144J-390 | Fusible Resistor | 39 Ω " (KD-A55A/B/E) | 1 |
| R975 | QRD142J-100S | C. Resistor | | 1 |
| R976 | QRD141J-392SY | " | | 1 |
| | V44611-001 | Formed Bus Wire | 5 mm | 2 |
| | V44611-003 | " | 15 mm | 2 |
| | V44611-005 | " | 12.5 mm | 2 |
| | QWY123-022 | Bus Wire | for Jump | 20 |
| | V44611-002 | Formed Bus Wire | 10 mm | 1 |
| VR101, 201 | QVP8A0B-024 | V. Resistor | PB. EQ | 2 |
| VR102, 202 | " -024 | " | PB. Level | 2 |
| VR103, 203 | " -023 | " | Meter | 2 |
| VR104, 204 | QVD8A2A-014V | " | Output | 1 |
| VR105, 205 | QVE5A3A-024F | " | Input | 2 |
| VR106, 206 | QVP8A0B-024 | " | Rec. Level | 2 |
| VR107, 207 | QVP4A0B-244 | " | Bias – SF | 2 |
| VR108, 208 | QVP4A0B-224 | " | Bias – SA | 2 |
| VR109, 209 | QVP4A0B-102 | " | Bias – Metal | 2 |
| C101, 201, 172, 272 | QCS11HJ-391 | C. Capacitor | 390 pF 50 V | 4 |
| C102, 202, 103, 203, 130, 230 | QEB41EM-106M | E. Capacitor (Low Leak) | 10 μF 25 V | 6 |
| C104, 204 | QCS11HK-101 | C. Capacitor | 100 pF 50 V | 2 |
| C105, 205, 123, 223, 166, 266, 925 | QFM41HJ-103 | M. Capacitor | 0.01 μF 50 V | 7 |
| C106, 206 | QCS11HK-680 | C. Capacitor | 68 pF 50 V | 2 |
| C107, 207, 143, 243, 906, 916, 917, 927, 949 | QET41HR-106N | E. Capacitor | 10 μF 50 V | 9 |
| C108, 208 | QEB41EM-475M | E. Capacitor (Low Leak) | 4.7 μF 25 V | 2 |
| C109, 209, 144, 244, 155, 255, 173, 273, 907 | QET41ER-336N | E. Capacitor | 33 μF " | 9 |
| C110, 210 | QFM41HJ-123 | M. Capacitor | 0.012 μF 50 V | 2 |
| C111, 211, 168, 268 | " -332 | " | 0.0033 μF " | 4 |
| C112, 212 | " -122 | " | 0.0012 μF " | 2 |
| C121, 221, 122, 222, 153, 253 | QEB41HM-105M | E. Capacitor (Low Leak) | 1 μF " | 6 |
| C124, 224, 135, 235, 141, 241, 145, 245, 161, 261, 170, 270, 941, 177, 277, 178, 278, 179, 279 | QET41HR-105N | E. Capacitor | 1 μF " | 19 |
| C125, 225 | QCS11HJ-201 | C. Capacitor | 200 pF " | 2 |
| C126, 226, 162, 262 | QFM41HJ-152 | M. Capacitor | 0.0015 μF " | 4 |
| C127, 227 | QFM41HJ-222 | " | 0.0022 μF " | 2 |
| C128, 228 | " -273 | " | 0.027 μF " | 2 |
| C129, 229 | QEB41HM-335M | E. Capacitor (Low Leak) | 3.3 μF " | 2 |
| C131, 231, 142, 242 | QET41CR-476N | E. Capacitor | 47 μF 16 V | 4 |
| C132, 232 | QFM41HJ-562 | M. Capacitor | 0.0056 μF 50 V | 2 |
| C133, 233, 134, 234 | QET41HR-335N | E. Capacitor | 3.3 μF " | 4 |
| C151, 251 | QEB41EM-335N | E. Capacitor (Low Leak) | 3.3 μF 25 V | 2 |
| C152, 252 | QCS11HK-471 | C. Capacitor | 470 pF 50 V | 2 |
| C154, 254 | QET41AR-476N | E. Capacitor | 47 μF 10 V | 2 |
| C163, 263 | QFM41HJ-102 | M. Capacitor | 0.001 μF 50 V | 2 |

# Mecha Control P.W. Board Parts List

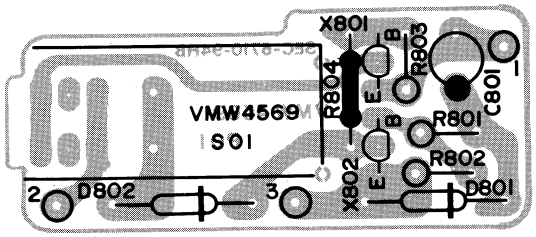
⚠ parts are safety assurance parts.
When replacing those parts, make sure to use the specified one.

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|---|---|---|---|---|
| | VMW2524-003 | P.W. Board | | 1 |
| R501–504, 511, 512, 528, 529, 545, 553, 559, 560, 572, 577, 587, 591, 593, 594 | QRD141J-472SY | C. Resistor | 4.7 kΩ ¼ W | 18 |
| R505–509, 521, | " -271SY | " | 270 Ω " | 6 |
| R510 | " -331SY | " | 330 Ω " | 1 |
| R513 | QRD121K-101 | " | 100 Ω ½ W | 1 |
| R514, 519 | QRD141K-104SY | " | 100 kΩ ¼ W | 2 |
| R515, 516, 518, 535, 558, 584, 585, 589, 592 | " -102SY | " | 1 k Ω " | 9 |
| R517, 576, 595, 596 | " -222SY | " | 2.2 kΩ " | 4 |
| R520 | " -153SY | " | 15 kΩ " | 1 |
| R522, 569 | " -223S | " | 22 kΩ " | 2 |
| R523, 526, 527, 533, 554, 556, 557, 583, 588, 586, 587, 598 | " -103SY | " | 10 kΩ " | 12 |
| R524 | " -473SY | " | 47 kΩ " | 1 |
| R525, 532 | " -101SY | " | 100 Ω " | 2 |
| R530 | QRD142J-103S | " | 10 kΩ " | 1 |
| R531, 578 | QRD121K-681 | " | 680 Ω " | 2 |
| R534 | QRD143J-103S | " | 10 kΩ " | 1 |
| R538 | ⚠QRD126J-8R2 | Unflammable Resistor | 8.2 Ω ½W(KD-A55C/J/U) | 1 |
| | ⚠QRH124J-8R2 | Fusible Resistor | 8.2 Ω " (KD-A55A/B/E) | 1 |
| R539 | QRD126K-220 | C. Resistor | 22 Ω " (KD-A55C/J/U) | 1 |
| | QRH124J-220 | Fusible Resistor | 22 Ω " (KD-A55A/B/E) | 1 |
| R540, 541, 555 | QRD121K-102 | C. Resistor | 1 kΩ ½ W | 3 |
| R542, 543 | QRD141K-152SY | " | 1.5 kΩ ¼ W | 2 |
| R544 | ⚠QRH014J-220 | Fusible Resistor | 22 Ω 1 W | 1 |
| R546 | QRD141J-474SY | C. Resistor | 470 kΩ ¼ W | 1 |
| R547, 548 | " -273SY | " | 27 kΩ " | 2 |
| R549 | " -560SY | " | 56 Ω " | 1 |
| R550 | QRD142J-473S | " | 47 kΩ " | 1 |
| R552 | ⚠QRG019J-331 | OMF Resistor | 330 Ω 1 W | 1 |
| R561, 563, 564, 570 | QRD141J-473SY | C. Resistor | 47 kΩ ¼ W | 4 |
| R562 | QRD147J-223S | " | 22 kΩ " | 1 |
| R565 | QRD141J-680SY | " | 68 Ω " | 1 |
| R566 | QRD142J-224S | " | 220 kΩ " | 1 |
| R567 | QRD141J-123SY | " | 12 kΩ " | 1 |
| R568 | " -183SY | " | 18 kΩ " | 1 |
| R571 | " -182SY | " | 1.8 kΩ " | 1 |
| R573 | " -823SY | " | 82 kΩ " | 1 |
| R574 | QRD142J-104S | " | 100 kΩ " | 1 |
| R575 | " -222S | " | 2.2 kΩ " | 1 |
| R579, 580 | QRD141J-471SY | " | 470 Ω " | 2 |
| R581 | QRD142J-273S | " | 27 kΩ " | 1 |
| R582 | QRD141J-104SY | " | 100 kΩ " | 1 |
| R590 | " -101SY | " | 100 Ω " | 1 |
| R599 | " -182SY | " | 1.8 kΩ " | 1 |
| R600 | QRD143J-472S | " | 4.7 kΩ " | 1 |
| C501–503, 514 | QCF11HP-103 | C. Capacitor | 0.01 μF 50 V | 4 |
| C504, 512, 531 | " -104 | " | 0.1 μF " | 3 |
| C505, 530 | QEB41HM-474M | E. Capacitor (Low Leak) | 0.47 μF " | 2 |
| C508 | QET40JR-476N | E. Capacitor | 47 μF 6.3 V | 1 |
| C509, 510, 515 | QET41HR-106N | " | 10 μF 50 V | 3 |
| C511 | QET40JR-477N | " | 470 μF 6.3 V | 1 |
| C513, 533, 527 | QET41HR-475N | " | 4.7 μF 50 V | 3 |
| C516 | QET41AR-476N | " | 47 μF 10 V | 1 |
| C517 | QET41VR-108N | " | 1000 μF 35 V | 1 |
| C519 | QET41ER-476N | " | 47 μF 25 V | 1 |

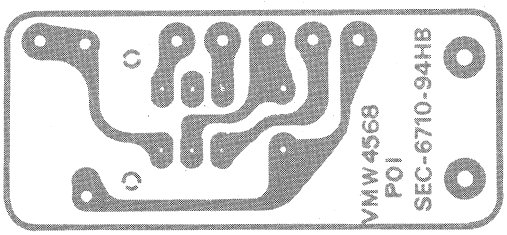
| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|---|---|---|---|---|
| C521, 523, 526 | QET41HR-105N | E. Capacitor | 1 μF 50 V | 3 |
| C524 | QCS11HK-151 | C. Capacitor | 150 pF " | 1 |
| C528 | QEB41HM-105M | E. Capacitor (Low Leak) | 1 μF " | 1 |
| C529 | QET41CR-477N | " " | 470 μF 16 V | 1 |
| C532 | QFM41HK-473 | C. Capacitor | 0.047 μF 50 V | 1 |
| C536 | QET40JR-227N | E. Capacitor | 220 μF 6.3 V | 1 |
| VR501 | QVP6A0B-013 | V. Resistor | 1 kΩ | 1 |
| (D524) | V44611-003 | Formed Bus Wire | | 1 |
| D526, 525, 523, 522, 501–511, 513–519, 521 | MA150 | Si. Diode | | 22 |
| D510 | ⚠10E1-B | " | | 1 |
| D512 | RD6.2E(B3) | Zener Diode | | 1 |
| D520 | OA90 | Ge. Diode | | 1 |
| X501, 502, 504, 506, 512–518, 519, 520 | 2SC945L(PA,KA) | Si. Transistor | | 13 |
| X503, 505 | 2SD571(LA, KA) | " | | 2 |
| X507, 508 | 2SD471(LA, KA) | " | | 2 |
| X509–511 | 2SC2001(L, K) | " | | 3 |
| IC501 | M54886P | IC | | 1 |
| IC502 | M53206P | " | | 1 |
| IC503 | AN6552 | " | | 1 |
| IC504 | M74LS03 | " | | 1 |
| CN501 | QMV5004-008 | Plug Ass'y | | 1 |
| CN502 | " -006 | " | | 1 |
| CN503 | QMV5005-008 | " | | 1 |
| CN504 | QMV5004-003 | " | | 1 |
| | V44611-005 | Formed Bus Wire | 12.5 mm | 3 |
| | QWY123-022 | Bus Wire | | 24 |
| | E43727-002 | Wrapping Wire | | 33 |

# Other P.W. Board Parts

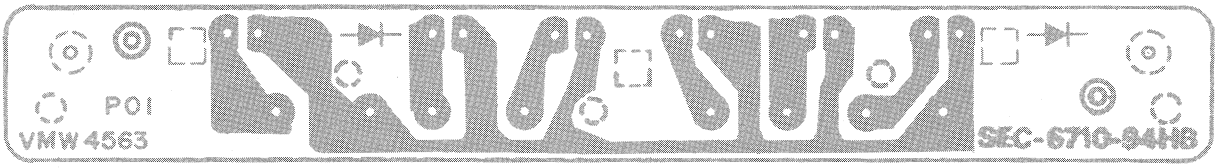
**– Timer Standby Switch –**



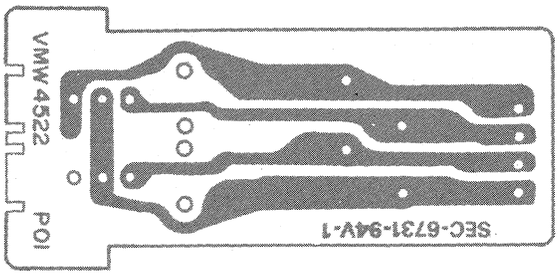

**– Memory Switch –**



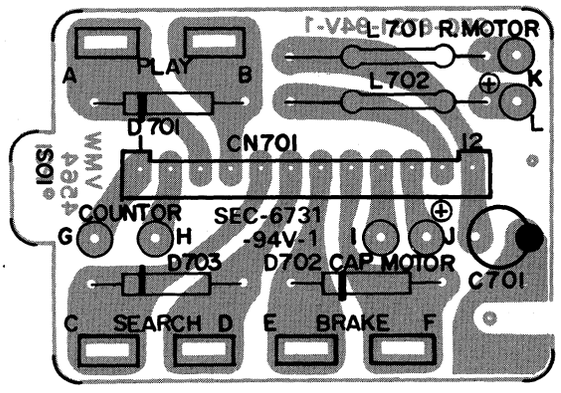

**– LED –**



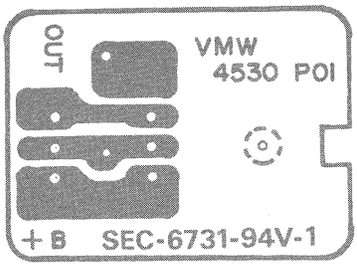
– Slide Switch –




– Connector –

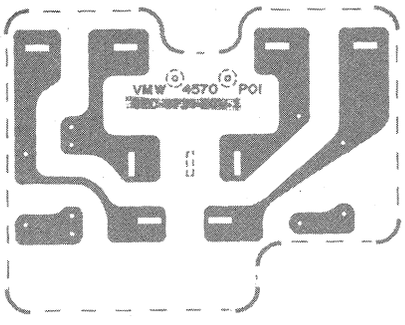



– Hall IC –

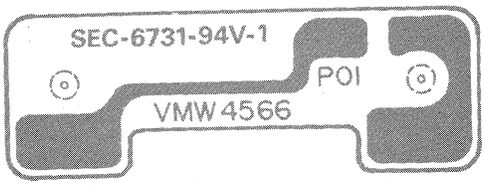



– Power Switch –

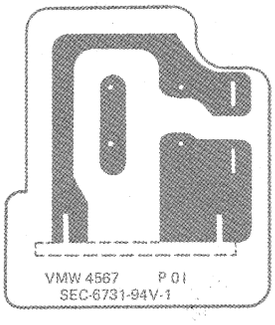
KD-A55A/B/C/E/J



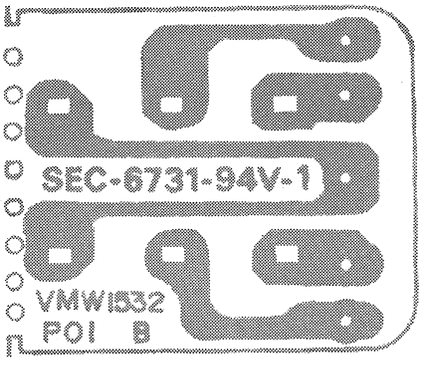

– Back Light –



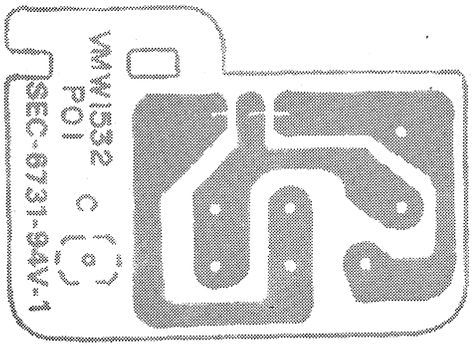

KD-A55U




– Volume –



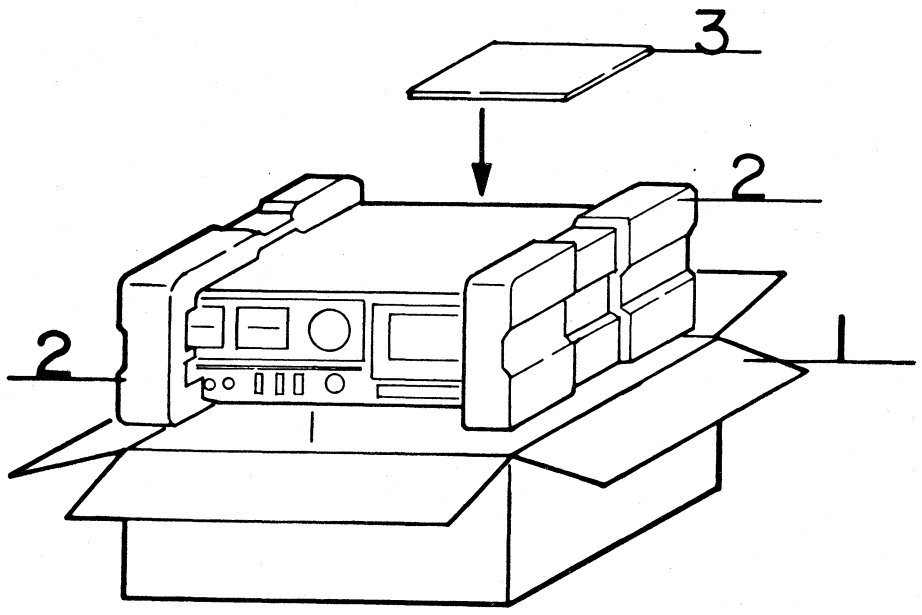

– IC –



# Other P.W. Board Parts List

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|---|---|---|---|---|
| **(LED)** | | | | |
| | VMW4563-001 | P.W. Board | | 1 |
| D301–305 | SLP-155B-01V | LED | | 5 |
| D306 | SLP-255B-01V | " | | 1 |
| | VJD3214-001 | LED Holder | | 1 |
| **(Timer Standby Switch)** | | | | |
| | VMW4569-001 | P.W. Board | | 1 |
| R801 | QRD143J-683S | C. Resistor | 68 kΩ ¼ W | 1 |
| R802, 803 | " -473S | " | 47 kΩ " | 2 |
| R804 | QRD141J-683S | " | 68 kΩ " | 1 |
| C801 | QET41CR-226N | E. Capacitor | 22 μF 16 V | 1 |
| D801, 802 | MA150 | Si. Diode | | 2 |
| X801 | 2SA733A(P,K) | Si. Transistor | | 1 |
| X802 | 2SC945L(PA,KA) | " | | 1 |
| | QSS2301-102 | Slide Switch | for Timer Standby | 1 |
| | LPSP2604Z | Screw | | 2 |
| **(Touch Switch)** | | | | |
| | VST0004-001 | SW. Unit Ass'y | | 1 |
| D604 | SLP-114BV | LED | | 1 |
| D601–603, 605, 606 | SLP-214BV | " | | 5 |
| **(Power Switch)** | | | | |
| | VMW4570-001 | P.W. Board | KD-A55A/B/C/E/J | 1 |
| | VMW4567-001 | P.W. Board | KD-A55U | 1 |
| | QSP2111-011 | Push Switch | for Power Switch KD-A55A/E | 1 |
| | " -011BS | " | " KD-A55B | 1 |
| | QSP1110-222 | " | " KD-A55C/J | 1 |
| | " -221 | " | " KD-A55U | 1 |
| C01, 02 | QPZ9010-103 | M.P. Capacitor | 0.01 μF | 2 |
| R01, 02 | QRD149J-820S | Unflammable Resistor | | 2 |
| | E40130-001 | Tab | | 4 |
| | LPSP3006ZS | Screw | for Power Switch | 2 |
| **(Memory Switch)** | | | | |
| | VMW4568-001 | P.W. Board | | 1 |
| | QSS2301-102 | Slide Switch | | 1 |
| **(Back Light)** | | | | |
| | VMW4566-001 | P.W. Board | | 1 |
| | QLP3601-003 | Lamp | | 1 |
| **(Slide Switch)** | | | | |
| | VMW4522-001 | P.W. Board | | 1 |
| | QSP0029-001 | Slide Switch | | 1 |
| | QMV5004-004 | Connector | | 1 |
| **(Hall IC)** | | | | |
| | VMW4530-002 | P.W. Board | | 1 |
| | DN6835 | Hall IC | | 1 |
| | QMV5005-003 | Connector | | 1 |
| **(Connector)** | | | | |
| | VMW4564-001 | P.W. Board | | 1 |
| | 10E1 | Si. Diode | | 3 |
| | QMV5005-012 | Connector | | 1 |
| | E40130-012 | Tab | | 6 |
| | T41572-001 | Inductor | | 2 |
| | QEW41HA-105N | E. Capacitor | 1 μF 50 V | 1 |
| **(IC)** | | | | |
| | VMW1532-004 | P.W. Board | | – |
| | UPC78M15H | IC | | 1 |
| | VKL4771-001 | Heat Sink | | 1 |
| | LPSP3006ZS | Screw | for IC903 | 1 |
| | SBSB3006Z | " | for Heat Sink | 2 |

# Packing




**Packing Material List**

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|---|---|---|---|---|
| 1 ~ 2 | VPA3131-00B | Packing Case Ass'y | KD-A55A/B/E/U | 1 set |
| 1 ~ 2 | " -00C | " | KD-A55C | " |
| 1 ~ 2 | " -00D | " | KD-A55J | " |
| 1 | VPA3131-004 | Case | KD-A55A/B/E/J/U | 1 |
| 1 | " -005 | " | KD-A55C | 1 |
| 2 | VPH2126-001 | Cushion (L) | | 1 |
| 2 | VPH2127-001 | " (R) | | 1 |
| | QPGA060-06005 | Envelope | for Set | 1 |
| | AP4056A-036 | " | for Power Cord, Provided Cord | 2 |
| | " -077 | " | for Instruction Book | 1 |
| | TKS000501-08 | Sheet | for Set | 1 |
| | VPK4132-001 | Spacer | | 1 |

# Accessories

| Parts No. | Parts Name | Remarks | Q'ty |
|---|---|---|---|
| VMP0002-00A | PIN Cord | KD-A55A/C/J/U | 2 |
| CN-201 | DIN Cord | KD-A55B/E | 1 |
| VYA4001-00A | Head Cleaning Stick | | 1 |
| VNN0055-301 | Instruction Book | | 1 |
| VND4013-001 | Warning Label | for Disconnection KD-A55A/B/E | 1 |
| T46328-003 | Caution Label | for Voltage Selector KD-A55A/B | 1 |
| BT20029B | Warranty Card | KD-A55A | 1 |
| BT20013C | Guarantee Certificate | KD-A55B | 1 |
| TJL000443-01 | Seal | Made in Japan KD-A55B | 1 |
| | BEAB Label | KD-A55B | 1 |
| QZL1002-003BS | Warning Label | for 2-pin Power Cord KD-A55B | 1 |
| VNC5004-001 | Mark Sticker | DIN45500 for V. Selector KD-A55B/E | 1 |
| BT20025C | Warranty Card | KD-A55C | 1 |
| T44362-001 | CSA Marker | KD-A55C | 1 |
| TLT000505-01 | UL/CSA Caution Label | KD-A55C/J | 1 |
| T46328-004 | Caution Label | for Voltage Selector KD-A55E | 1 |
| BT20032B | Warranty Card | KD-A55J/U (U – for PX. EES) | 1 |
| BT20042 | Special Reply Card | KD-A55J/U (U – for PX. EES) | 1 |
| E7795-1 | EP Mark | KD-A55U (for PX. EES) | 1 |
| V04062-001 | Siemens Plug | KD-A55U | 1 |
| T46328-001 | Caution Label | KD-A55U | 1 |
| VNC5311-101 | Caution Card | KD-A55U (for EES) | 1 |
| VPZ4001-001 | Serial Ticket | KD-A55A/B/E/J/U | 1 |
| T43758-001 | Serial Ticket | KD-A55C | 1 |